
Toward More Effective, Evidence-Based Suicide Prevention in Nunavut

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, Inuit Circumpolar Youth Council, May 18, 2005

THE WORLD'S INUIT POPULATION HAS NOT ALWAYS SUFFERED FROM THE TRAGICALLY high rates of suicide that it now experiences. The 150,000 Inuit alive today are an indigenous people inhabiting the Arctic regions of the Chukotka Peninsula in the Russian far east, Alaska, Canada and Greenland. A maritime people, Inuit traditionally relied on fish, marine mammals and land animals for food, clothing, transport, shelter, warmth, light and tools. Until fairly recently, there was a remarkable cultural homogeneity across their homelands, but that began to change as the four states in which Inuit now find themselves¹ consolidated their grip over their Arctic regions.

Suicide was not unknown in historical Inuit culture. This might seem obvious — has there ever been a society in which no one took his or her own life? — but the CBC Digital Archives Web site tells its readers that “the concept of suicide was unknown to the Inuit before they made contact with colonizers” (“Linking School” 1991). Franz Boas, however, famously wrote that “suicide is not of rare occurrence, as according to the religious ideas of the Eskimo the souls of those who die by violence go to Qudlivun, the happy land. For the same reason it is considered lawful for a man to kill his aged parents. In suicide death is generally brought about by hanging.” (1888, 615).

In his book *The Intellectual Culture of the Iglulik Eskimos* (1929), Knud Rasmussen documented several suicides in what we know today as the Kivalliq

region of Nunavut. Rasmussen's Fifth Thule Expedition also investigated Inuit spiritual beliefs relevant to the taking of one's own life:

The Moon Spirit is one of the great regulating powers of the universe which is not feared. Knowing the view of the East Greenlanders, who regard the Moon Spirit as the most terrible of the punitive deities watching over the deeds of men, I enquired particularly about this point, but was everywhere informed that no one feared the Moon Spirit, only the Sea Spirit was to be feared, and especially her father. The Moon Spirit, on the other hand, is the only good and well-intentioned spirit known, and when he does intervene, it is often more for guidance than for punishment. People in danger can often hear him calling out: "Come, come to me! It is not painful to die. It is only a brief moment of dizziness. It does not hurt to kill yourself." (Rasmussen 1929)

John Steckley has questioned the evidence supporting what he terms the "simulacrum" (intellectual commodity) of Inuit frequently abandoning their elders to perish when the survival of the entire family group was in peril, and he points out that many of the accounts of Inuit elder suicide that appear in sociology texts are entirely fictional. The final sentences in this "account" suggest that *all* Inuit elders died by assisted suicide:

Shantu and Wishta fondly kissed their children and grandchildren farewell. Then sadly, but with resignation at the sacrifice they knew they had to make for their family, they slowly climbed onto the ice floe. The goodbyes were painfully made as the large slab of ice inched into the ocean currents. Shantu and Wishta would now starve. But they were old, and their death was necessary, for it reduced the demand on the small group's scarce food supply. As the younger relatives watched Shantu and Wishta recede into the distance, each knew that their turn to make this sacrifice would come. Each hoped that they would face it as courageously. (Steckley 2003)

The simulacrum of high rates of Inuit elder suicide is so strong that when a medical student in Alaska submitted a letter to the *Journal of the American Medical Association* in 2000 in which he spoke of witnessing a 97-year-old Yup'ik patient saying goodbye to his family, walking onto the sea ice and "vanishing into the early morning fog," no one at the very prestigious and professional journal doubted it, and the letter was published. The author's supervising physician in the village in question wrote to *JAMA* informing the editors that the story was just that — a fiction (Swenson 2000).

We are now seeing a new simulacrum that exaggerates the rate of youth suicide among Inuit. Writing on the liberal news Web site and aggregated Weblog

the *Huffington Post* in 2007, the man who has been executive director of the Sierra Club for 15 years observed:

The cemetery at Illulissat seems surprisingly large for a town of its size — the cold Arctic air preserves the wooden crosses, and the flowers are, unsurprisingly, plastic, so they too last and magnify the visual marker of the graveyard. But this March the cemetery grew in a tragic, stunning sign of how global warming and globalization are combining to take human lives.

In a village which 20 years ago supported itself hunting marine mammals on the sea ice, fathers taught their sons the skills of the hunt. The sea ice has now vanished and the hunt along with it, so fathers no longer teach their sons. There is new employment in Illulissat — tourism, oil exploration, commercial fishing — but the collapse of the traditional subsistence culture has left despair and hopelessness among the young.

This March, in a town of only 5,000 people, 14 teenage boys took their lives. (Pope 2007)

No evidence was offered to substantiate the claim that “the collapse of the traditional subsistence culture” had resulted in high rates of suicide because it had created “despair and hopelessness among the young.”

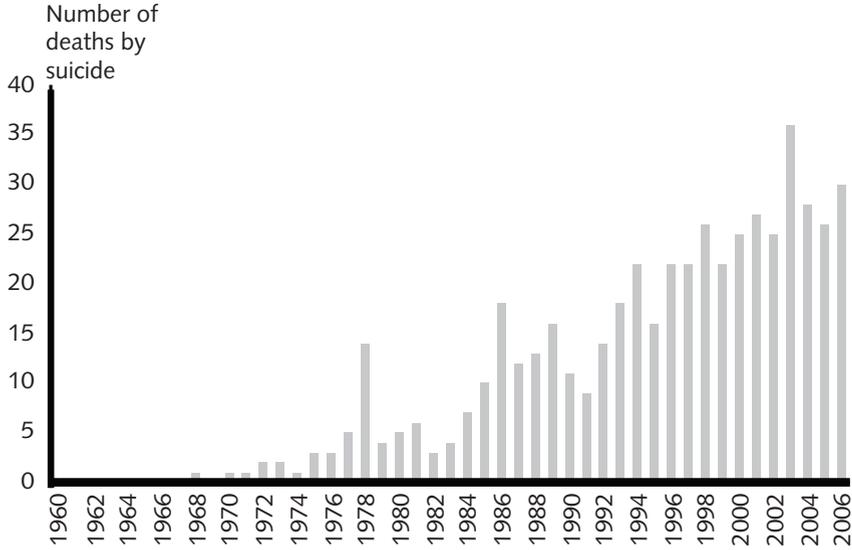
Fourteen teenage suicides in a single month in a town of 5,000 would, without a doubt, be a tragedy of unbelievable proportion. But in reality, there was one suicide in Illulissat in all of 2007.² There is no need to exaggerate the seriousness of what is happening with regard to suicide in Inuit societies — the facts speak for themselves.

A Statistical Portrait of Death by Suicide in Inuit Societies

THE EVIDENCE SUGGESTS THAT UNTIL QUITE RECENTLY, INUIT SOCIETIES HAD A QUITE low rate of death by suicide. The earliest existing data on suicide among Inuit come from Greenland. Writing in 1935, Alfred Berthelsen calculated a suicide rate of just 3.0 per annum per 100,000 population for the period 1900 to 1930.³ He concluded that the few suicides occurring in Greenland at that time were all the result of serious mental illnesses. As late as 1960, there was still the occasional year when no suicides by Greenlanders were recorded.

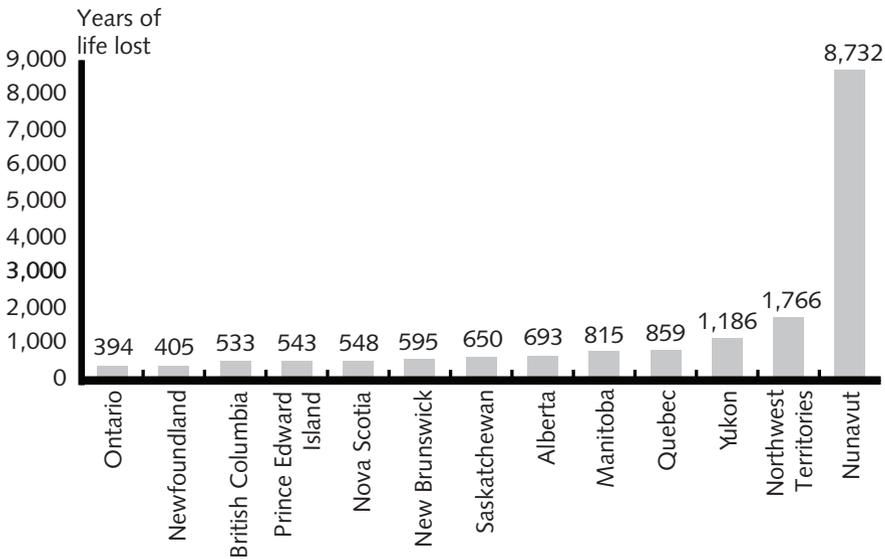
If the coroners' records from the predivision Northwest Territories are complete, then in the area we know today as Nunavut there was just one suicide

Figure 1
Number of Deaths by Suicide in Nunavut, 1960-2006



Source: Author's tabulations based on raw data from the Office of the Chief Coroner of Nunavut.

Figure 2
Potential Years of Life Lost Due to Death by Suicide among Men in Canada, by Province and Territory, 2003 (per 100,000 population)



Source: Statistics Canada, CANSIM table 102-0110.

in the entire decade of the 1960s (figure 1). As recently as 1971, the rate of death by suicide among Inuit in Canada was close to that of the non-Aboriginal population of the country. And in Alaska, Kraus and Buffler found that during the 1950s, Alaska Native peoples had a rate of death by suicide that was considerably *lower* than that of the non-Native residents of the state (1979). Today, however, - Inuit-dominated regions of Canada have suicide rates that far exceed those of other parts of the country (figure 2; the use of “potential years of life lost” highlights the young median age of suicide among Inuit). The quality of data available on the four Inuit regions of Canada varies considerably, but there are sufficient basic data to tell us that Inuit in the different regions have quite different rates of death by suicide (figure 3).

Beginning in the 1950s, governments across the Arctic subjected Inuit lifeways to intense disruption. The details varied considerably across the Arctic, but the fundamental economic, political and social processes of incorporation and sedentarization⁴ were similar. These processes also took place at somewhat different times in different parts of the Arctic, and they had somewhat divergent outcomes (Csonka 2005).

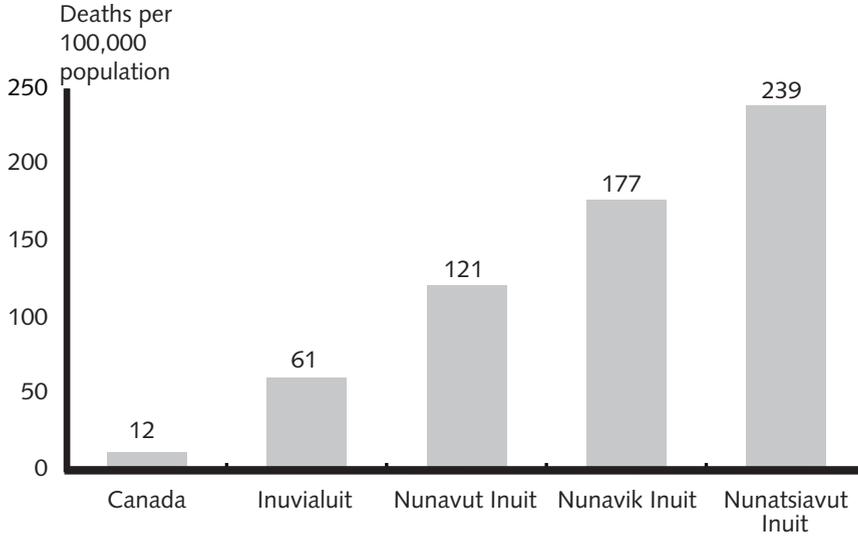
The transition from the historical pattern of suicide among Inuit to the present-day pattern was first documented in northern Alaska by psychiatrist Robert Kraus. In a paper he presented at a 1971 conference, he noted:

In the traditional pattern, middle-aged or older men were involved; motivation for suicide involved sickness, old age, or bereavement; the suicide was undertaken after sober reflection and, at times, consultation with family members who might condone or participate in the act; and suicide was positively sanctioned in the culture. In the emergent pattern, the individuals involved are young; the motivation is obscure and often related to intense and unbearable affective states; the behaviour appears in an abrupt, fit-like, unexpected manner without much warning, often in association with alcohol intoxication; and, unlike the traditional pattern, the emergent pattern is negatively sanctioned in the culture. (Kraus 1971)

This suicide transition among Inuit was experienced first in northern Alaska in the late 1960s, then in Greenland in the 1970s and early 1980s, and then again in Canada’s eastern Arctic in the late 1980s and through the 1990s.⁵ Each time the transition occurred, it resulted in a higher overall rate of death by suicide (figure 4).

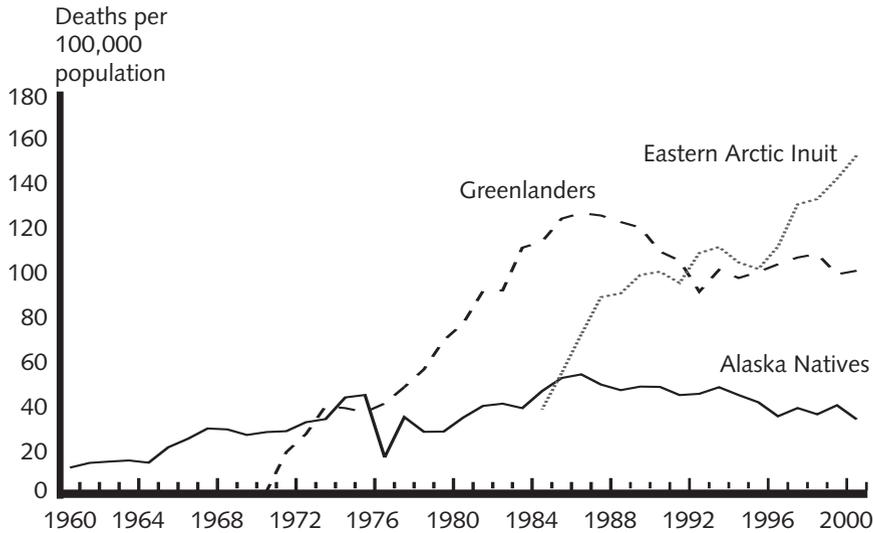
The temporal sequence in which the “regional suicide transitions” occurred is noteworthy, as it mirrors — roughly one generation later — the processes of active colonialism at the community level described earlier.⁶ We can use the decline

Figure 3
Average Annual Rates of Death by Suicide among Inuit, by Region and in Canada, 1999-2003



Source: Author's tabulations based on raw data from the coroners' offices in the various jurisdictions and on demographic data from national statistical agencies.

Figure 4
Rates of Death by Suicide among Alaska Natives, Greenlanders and Eastern Arctic Inuit,¹ 1960-2001



Sources: Greenland: Bjerregaard and Lynge (2006); Alaska: Personal communication, Matthew Berman, University of Alaska-Anchorage; Eastern Arctic Inuit: author's tabulations based on coroners' records from the various jurisdictions and demographic data from Statistics Canada.

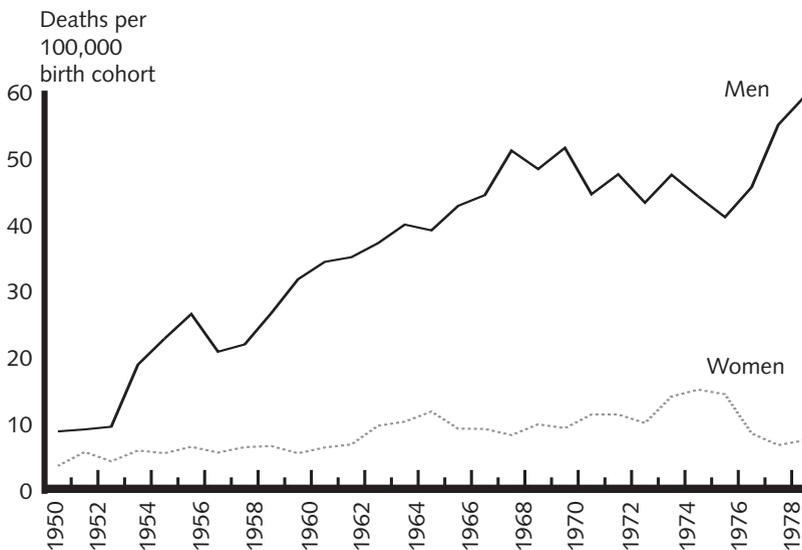
¹ Three-year rolling averages; eastern Arctic is Nunavik and the Qikiqtani region of Nunavut.

in the incidence of tuberculosis as a historical marker of the early years of “active colonialism at the community level.” The historical sequence in which Inuit infectious disease rates fell (as a result of the introduction of Western medicine) was the same order in which Inuit rates of death by suicide later rose across the Arctic.

Interpreting the Statistical Evidence

EVEN THOUGH THE EXISTING DATA ON SUICIDE AMONG INUIT ARE QUITE LIMITED, THE basic statistics we do have can tell us a fair amount about what has happened and what is happening. In each jurisdiction for which data are available,⁷ suicides first increased dramatically among young men. In Greenland, as Peter Bjerregaard has shown, suicide began to increase among young men born after 1950, the very year in which the Danish state initiated an intensive program to turn the island into a “modern welfare society” — a process in which only a few Greenlanders had any say (figure 5).

Figure 5
Rates of Death by Suicide among Greenlanders, by Gender and Year of Birth, 1950-78

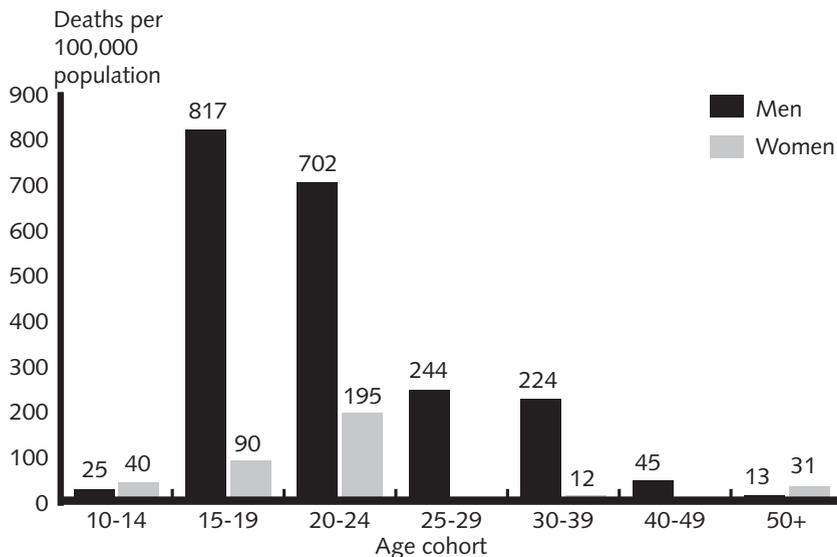


Source: Bjerregaard and Lyngé (2006, 213).

Today, suicide rates are several times higher among young Inuit men than they are among Inuit women of the same age and older Inuit men and women; and the rates for these young men are many times higher than they are for their peers in mainland Denmark and southern Canada and the US. It is difficult to find words to describe the suicide-related pain and trauma that has been suffered in Inuit communities in recent years.

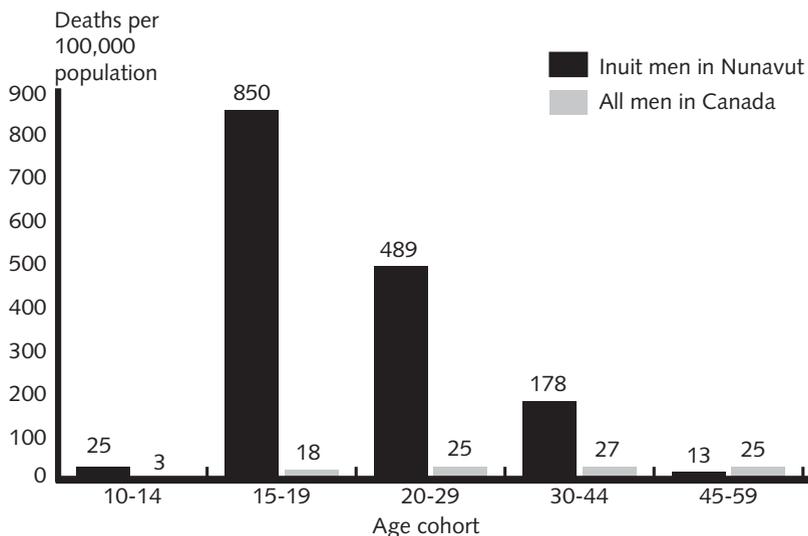
During the first nine years of Nunavut's existence (April 1, 1999, to March 31, 2008), there were 247 suicides. All but three were by Inuit. Of the 244 suicides by Nunavut Inuit, 201 (82 percent) were by men and 43 (18 percent) were by women. The rate of death by suicide among Nunavut Inuit more than tripled during the 20 years beginning in 1983, and it is currently just over 120 per 100,000 population. Fifty-six percent of suicides in Nunavut are by men younger than 25, compared to 7 percent Canada-wide (figures 6 and 7). Seventy-seven percent of suicides by men are by hanging; 20 percent are done with firearms (which are very common in Nunavut communities); 86 percent of suicides by women are by hanging; only a few are done by firearms or overdose.

Figure 6
Average Annual Rates of Death by Suicide among Nunavut Inuit, by Sex and by Age Cohort, 1999-2003



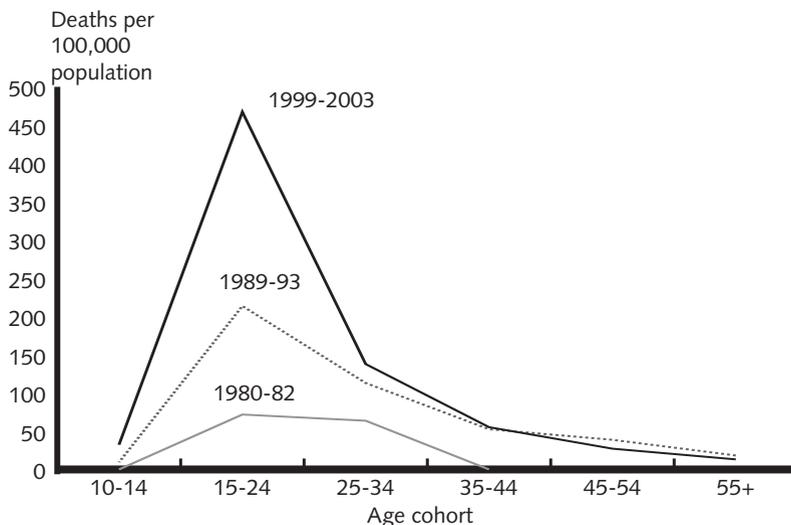
Source: Author's tabulations based on raw data from the Office of the Chief Coroner of Nunavut and on demographic data from Statistics Canada.

Figure 7
Average Annual Rates of Death by Suicide among Inuit Men in Nunavut, 1999-2003, and All Men in Canada, 1998, by Age Cohort



Sources: All men in Canada: Langlois and Morrison (2002, 15); Inuit men in Nunavut: author's tabulations based on raw data from the Office of the Chief Coroner of Nunavut and demographic data from Statistics Canada.

Figure 8
Average Annual Rates of Death by Suicide among Nunavut Inuit by Age Cohort in Three Time Periods, 1980-2003



Source: Author's tabulations based on raw data from the Office of the Chief Coroner of Nunavut and on demographic data from Statistics Canada.

The rise in Nunavut's rate of death by suicide is almost entirely the result of an increased number of suicides by Inuit younger than 25. The rate of death by suicide among Nunavut Inuit aged 15 to 24 has increased more than sixfold since the early 1980s (figure 8).

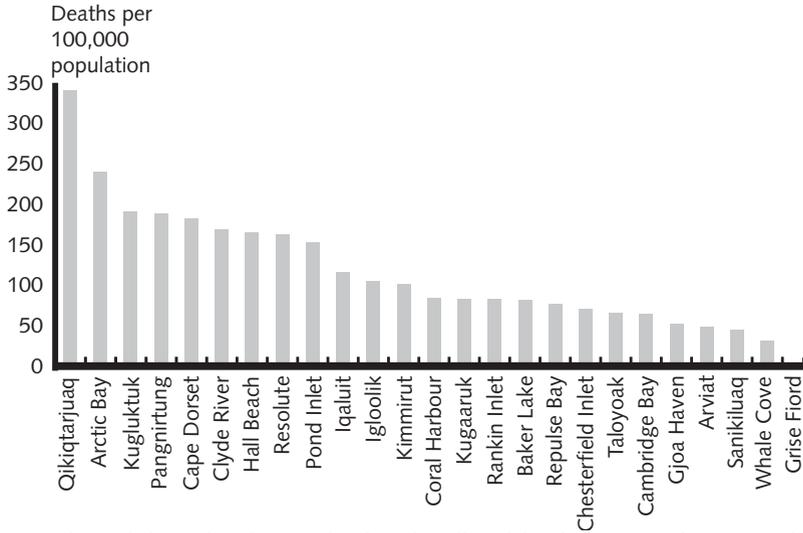
Of the 11 communities with the highest rates of death by suicide, 10 are located in the Qikiqtani (formerly Baffin) region — the exception being Kugluktuk, in the Kitikmeot region (figure 9). By “home community,” I mean the community in which the person who died by suicide grew up. This is usually the community in which he or she died, but a number of people who grew up in other communities have taken their lives in Iqaluit, after having been in the capital for only a few months, or even days.

In each Inuit jurisdiction, there are subregions that developed and sustained far higher rates of suicide than others did. In Alaska, the Northwest Coast has by far the highest rates. In Greenland, the suicide rate among young Inuit men peaked first in the capital city Nuuk in the early 1980s, then along the rest of the west coast in the late 1980s, and finally on the east coast in the early 1990s. Suicide among young men in East Greenland reached a rate of 1,500 per annum per 100,000 population — surely one of the highest suicide rates ever recorded anywhere on Earth — before it finally began to decline (figure 10).

In Nunavik (the Inuit part of northern Quebec), the Hudson coast has suffered from a much higher suicide rate than the Ungava coast; while in Nunavut, the Qikiqtani region has a markedly higher suicide rate than the two mainland regions (figures 11 and 12).

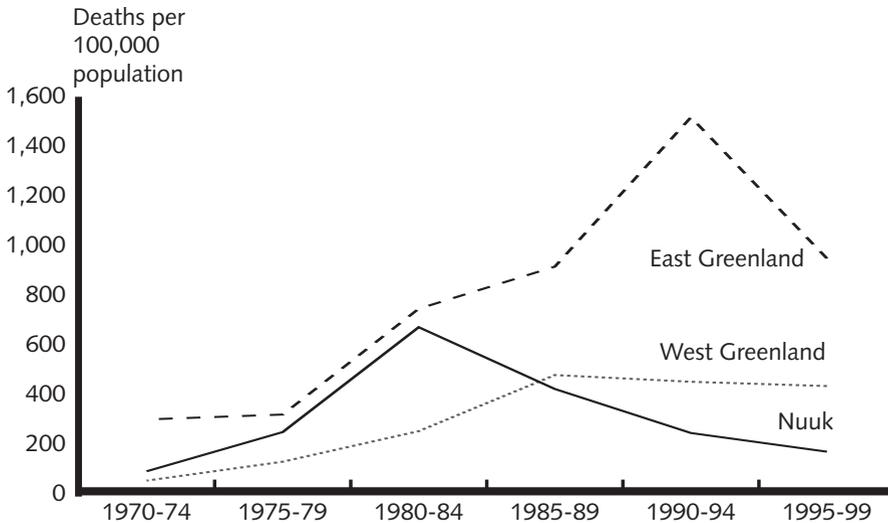
There are also similarities in terms of where the suicide rates are decreasing — those subregions of the Inuit world that have experienced the most development in recent decades. In Greenland, suicide rates among young men in Nuuk have declined significantly over the past 25 years, while they have remained stable on the rest of the west coast and risen considerably in East Greenland. A similar shift appears to be under way in Alaska: the suicide rate of Alaska Native peoples residing in urban Alaska⁸ (14.5 per 100,000 population) is now less than a third of that of Alaska Native peoples residing in bush Alaska (53 per 100,000 population). Any serious attempt to explain suicidal behaviour among Inuit in recent decades would therefore include consideration of the difference in rates between men and women, between age cohorts and between regions and subregions, as well as changes in all of these rates over time.

Figure 9
Average Annual Rates of Death by Suicide among Nunavut Inuit, by Home Community, 1999-2003



Source: Author's tabulations based on raw data from the Office of the Chief Coroner of Nunavut and on demographic data from Statistics Canada.

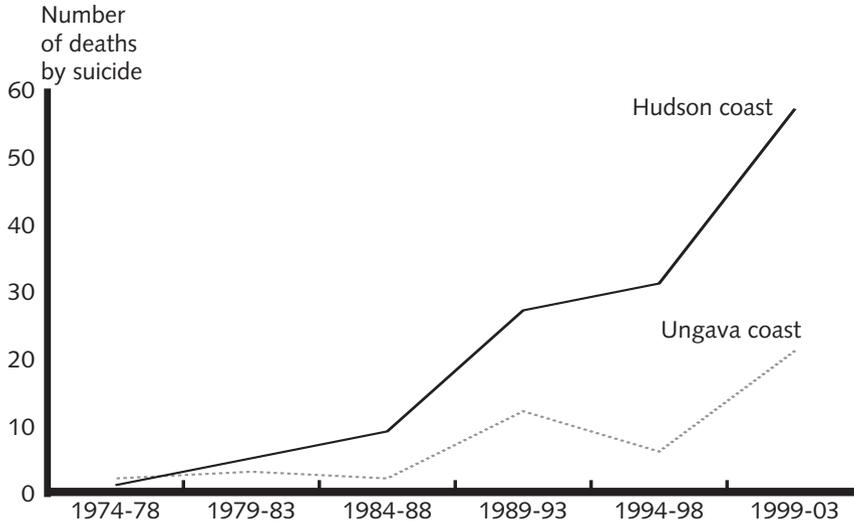
Figure 10
Average Annual Rates of Death by Suicide among Men Aged 15 to 29, in Nuuk,¹ West Greenland and East Greenland, 1970-99



Source: Bjerregaard and Lynge (2006, 212).

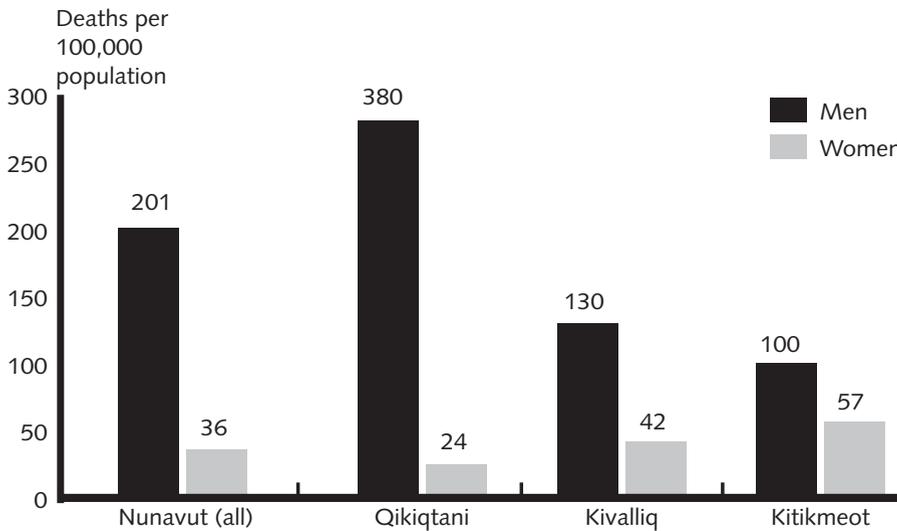
¹ Nuuk is the capital of Greenland.

Figure 11
Deaths by Suicide among Nunavik Inuit, by Coast, 1974-2003



Source: Kativik Regional Health and Social Services Board.

Figure 12
Average Annual Rates of Death by Suicide among Nunavut Inuit, by Gender and by Home Community, 1999-2003



Source: Author's tabulations based on raw data from the Office of the Chief Coroner of Nunavut and on demographic data from Statistics Canada.

Identifying Root Causes to Effect Change

THESE STATISTICS ARE REALLY NOTHING MORE THAN BODY COUNTS. THEY TELL US very little about why these people chose to end their lives. In order to develop more effective suicide prevention strategies, we need to know much more.

There is an important body of research on mental health in Greenland. Inge Lynge, the first psychiatrist on the island, made an unparalleled contribution to our understanding of the mental health of Inuit during the second half of the twentieth century.⁹ In a recent article, Lynge and another leading figure in Greenland health research in recent decades, Peter Bjerregaard, added the observation that “suicidal thoughts occur more often in young people who grew up in homes with a poor emotional environment, alcohol problems and violence...The socioeconomic and structural features of the home were less important than the emotional environment for the development of personality disorders. A logical sequence of transgenerational events would be that modernization leads to dysfunctional homes due to poor parental behavior (alcohol and violence). This in turn results in suicidal thoughts, suicides and also substance abuse among the children of those parents” (Bjerregaard and Lynge 2006). These conclusions are entirely consistent with the results of research on suicidal behaviour elsewhere in the world.¹⁰

The Ph.D. project of Dutch researcher Markus Leineweber also makes an important contribution to our understanding of suicide in Greenland. Leineweber worked with death certificates and police reports for deaths occurring between 1993 and 1995 that were deemed by the authorities to have been suicides; and, where possible, he obtained limited amounts of additional data on the deceased. He concluded that frequent conflict with family and friends, a recent life-threatening experience, the expression of suicidal intentions and the acute abuse of alcohol are the most common characteristics of Greenlanders who take their own lives (Leineweber 2000).

An equally important body of research has been accumulated in Nunavik by Laurence Kirmayer and his colleagues at McGill University. Kirmayer’s observation that “among the Inuit, greater familiarity with the problem and expectations for recovery are more important determinants of attitudes towards a person with deviant behaviour than are specific labels or causal attributes” helps us understand the importance of conducting public education about problematic behaviours and the effectiveness of various treatment options (Kirmayer 1997 et al.).

While there are no psychiatrists living in Nunavut as permanent residents — psychiatric services are provided on a fly-in basis from the south, with some patients being sent south for treatment — one psychiatrist who lived and practised in Iqaluit for a year recently published an insightful reflection on the clinical and social characteristics of the 110 Nunavummiut he was asked to see during a 12-month period: “Interpersonal and socio-environmental stressors were found to be unusually extensive and the primary precipitators of psychiatric crises such as suicide attempts. Negative health determinants such as unemployment, overcrowding, domestic violence, substance abuse, and legal charges were also prevalent. Psychiatric issues in the Arctic appear deeply interwoven with interpersonal, socioeconomic, and societal changes; effective community mental health services must address a broad spectrum of psychosocial issues beyond the medical model” (Law and Hutton 2007).

Research on the association of suicidal ideation (suicidal thoughts) and behaviour with depression, anxiety and alcohol abuse in a Nunavut community found very high rates of both suicidal ideation and suicide attempts (table 1).

We need to learn much more about the Nunavummiut who take their own lives, who attempt to do so, and who contemplate doing so: their rates and patterns of family history and early childhood experiences; mental disorders; medical history; education history; work history; relationship history; substance use/abuse; engagement with the justice system; access to and use of health care services; and other factors that may have played a role in their suicidal behaviour. We would also like to know about the presence or

Table 1
Suicidal Thoughts and Suicide Attempts in One Nunavut Community
(Percent)

Suicidal thoughts (past week) (<i>N</i> = 110)		Suicide attempts (past 6 months) (<i>N</i> = 110)	
None	56.4	Never	70.0
Sometimes	40.0	Once	14.0
Very often	3.6	Several	13.0
All the time	0.0	Many	3.0

Source: Haggarty et al. (2008).

absence of a number of protective factors. There is an accepted methodology for obtaining these much richer data: the suicide follow-back study (or psychological autopsy), by which researchers collect the detailed information they need to reconstruct the social, psychological and psychiatric history of persons who have died by suicide. This is accomplished through detailed, semistructured interviews with family members and others who knew the deceased well, plus a review of administrative data (for example, medical charts). This kind of comprehensive analysis has contributed much to our understanding of suicidal behaviour generally. The results have been summarized in two meta-analyses (Cavanagh et al. 2003; Arsenault-Lapierre, Kim, and Turecki 2004).

Considerably more will be known about the risk and protective factors specific to suicide in Nunavut in 2010, when the suicide follow-back study *Qaujivallianiq Inuusirijauvalauqtunik* (Learning from Lives That Have Been Lived) is completed. This study is being conducted by the McGill Group for Suicide Studies in partnership with a range of organizations in Nunavut. It is reviewing in great detail the lives of the 120 Inuit who died by suicide in Nunavut from 2003 to 2006, matched with case controls selected by community, sex and nearest date of birth.

The Impact of Adverse Childhood Experiences

HERE IS ALSO A VAST ARRAY OF RESEARCH ON MENTAL HEALTH THAT IS OF relevance to Inuit insofar as Inuit are people like everyone else, in addition to being members of a specific indigenous group. Of particular relevance to the Arctic at this moment in history is the literature on the negative impact of what are sometimes termed “adverse childhood experiences” — for example, emotional, physical and sexual abuse; neglectful or otherwise problematic parenting; substance abuse within the family; and violence within the family. In short, early childhood experiences — both positive and negative — can have a significant impact on the physical, mental, behavioural and economic well-being of the child and of the adolescent and adult he or she grows up to be.

The most important body of work in this field is the Christchurch Health and Development Study, which has

followed the health, education and life progress of a group of 1,265 children born in the Christchurch (New Zealand) urban region during mid 1977. This cohort has now been studied from infancy into childhood, adolescence and adulthood. The data gathered over the course of the study now comprises some 50 million characters of information describing the life history of this cohort. The Study has published over 300 scientific papers, books and book chapters describing the 30 year life history of the CHDS cohort. (CHDS n.d.)¹¹

It is impossible to summarize the wealth of findings from this study in a few paragraphs, but given that we are discussing a population with high rates of cannabis use in their early teenage years, we might note the findings of one of the most recent papers, on cannabis use and later-life outcomes:

Increasing cannabis use in late adolescence and early adulthood is associated with a range of adverse outcomes in later life. High levels of cannabis use are related to poorer educational outcomes, lower income, greater welfare dependence and unemployment, and lower relationship and life satisfaction. The findings add to a growing body of knowledge regarding the adverse consequences of heavy cannabis use. (Fergusson and Boden 2008)

The work of Robert F. Anda and his collaborators has also documented the profound impact that adverse childhood experiences can have on a person's mental and emotional health as an adult. They found a "strong, graded relationship" between adverse childhood experiences and an array of negative outcomes later in life, meaning that having a range of such negative experiences has a cumulative effect that makes it much more likely that a range of mental and emotional problems will arise (Anda et al. 2006; Chapman et al. 2004; Dube et al. 2001).¹²

The Centers for Disease Control's Adverse Childhood Experiences Study has also documented the profound impact that adverse childhood experiences can have on a person's mental and emotional health as an adult: "The public health impact of childhood adversity is evident in the very strong association between childhood adversity and depressive symptoms, antisocial behavior, and drug use during the early transition to adulthood" (Schilling, Aseltine, and Gore 2007). On a happier note, a range of early childhood intervention programs have been evaluated, and some have been shown to provide at-risk children with a better start in life and better mental health outcomes later on.

Social Determinants: Adapting to a New Life Script

AUSTRALIAN PSYCHIATRIST ROBERT GOLDNEY HAS SUGGESTED THAT ALL HUMAN SOCIETIES are likely to have a “base rate” of suicide in the range of 5 to 10 per annum per 100,000 population as a result of biological and other factors that are simply a part of the human condition (Goldney 2003; Turecki and Lalovic 2005). The differences between the base rate and rates that are significantly higher than the base rate are, Goldney believes, primarily the result of social determinants.¹³

The only logical explanation for the dramatic increase in suicide rates among Inuit living in different regions of the Arctic — with similar outcomes among the sexes and age groups, at different and distinct time periods — is that a similar basket of social determinants has impacted heavily on Inuit societies at different times across the different regions and subregions. The experiences that Inuit in different regions of the Arctic had several decades ago may have had significant impacts upon the mental health of their children — the next generation of young Inuit, who, in some cases, were the first Inuit to grow up in settled communities. The fact that suicide rates among young Inuit men residing in urban areas of Greenland and Alaska have fallen in recent decades suggests that this basket of social determinants is still at work, and that it continues to change over time.

It may be that young men who have grown up under these new conditions get a better start in life and have a greater chance of becoming happy, successful adults. In effect, a new “life script” may have come into existence in urban areas across the Inuit world. In the old days, boys grew up seeing the adult men around them being busy and productive, being good husbands and parents, and taking pride in their accomplishments. The opportunity to grow up seeing — and being parented by — adult men who are happy and successful is not uncommon in the Arctic, but socio-economic circumstances create a greater opportunity for it in some places than in others. The young Inuit men at greatest risk appear to be those who are situated somewhere between the historical Inuit life script and the emerging urban Inuit life script in communities and families where unemployment and social dysfunction are more common.

We are also living in a time of increasing social differentiation among Inuit, a process that has a mental health component. Some young Inuit in Nunavut find themselves living in a world of almost limitless opportunity, but the daily reality

of other young Inuit is one of historical traumas transmitted through family and community, overcrowded housing, a weak school system with a 75 percent dropout rate, limited employment opportunities, socio-cultural oppression (Sullivan and Brems 1997) and teenage years spent stoned on marijuana.

And while the settlement of Inuit land claims and the establishment of regional public governments that Inuit effectively control have gone a long way to redress the power imbalance that scarred several generations of Inuit, that kind of healing doesn't happen overnight. "There is still a lot of bitterness toward the government here," the mayor of a Nunavut community was recently quoted as saying. "It's passed down from generation to generation" (Belkin 2007). That bitterness is primarily directed toward the federal government.

If we accept Robert Goldney's suggestion that any society's suicide rate is a combination of a "base rate" and an incremental rate resulting from the social determinants specific to that society, then we can develop a clearer picture of what has been happening in Inuit society and what might be done to positively affect that society's mental health outcomes. Inuit take their lives for the same reasons other people do, but they also take their lives for other reasons specific to Inuit societies as they exist today. The challenge of suicide prevention in the Inuit regions, then, can be seen as the same challenge faced by all peoples on the planet, compounded by the unique social determinants underlying elevated rates of suicide among Inuit youth. Among those determinants may be the legacy of the adverse childhood experiences borne by the generation of Inuit who first began to display elevated rates of suicidal behaviour — people who grew up at a time when communities were raw and rough, when substance abuse was just beginning to ravage families and when discrimination was an everyday fact of life. Some families had the coping skills and resiliency required to protect their children from these social forces, but others did not.

Similarly, some people who suffered during those years have since healed, but many others are passing their historical trauma on to their children. If one were to pose the fundamental question "Why are Inuit societies generating such a high proportion of suicidal young people?" among the answers would have to be "Because they have high rates of adverse childhood experiences." For 50 years now, the Arctic has been a rough place to be a child. Many (but by no means all) children in the region have had (and continue to have) a much higher number of adverse childhood experiences of various kinds than do their peers in southern Canada.

An Overview of Prevention Strategies

WE KNOW QUITE A LOT BUT BY NO MEANS ENOUGH ABOUT THE EFFECTIVENESS of different suicide prevention strategies (Beautrais et al. 2007; Hawton 2005; Mann et al. 2006). There is a voluminous quantity of literature available to the medical/academic researcher, the government program manager and the average person who wants to help make a difference. The Web sites of the World Health Organization, the public health authorities in different countries and myriad suicide prevention organizations all share hard-won insights. Examples of “good practice” abound. One is the community development process that has taken place in the Aboriginal Australian community of Yarrabah, which appears to have significantly lowered the rate of suicidal behaviour there (Mitchell 2002). We cannot hope to prevent all suicides, but there is abundant evidence that we can prevent some suicides — perhaps even many suicides.

Given the severity of the suicide crisis in Inuit communities today and the fact that it has been developing for several decades, it is both remarkable and appalling how little the public governments in the Arctic have attempted in the way of suicide prevention. Alaska took the lead with a report issued by a special committee of the Alaska Senate (chaired by Inupiat senator Willie Hensley), a granting program to provide communities with the resources and support they needed for community-based projects they believed would make a difference, a program to train mental health paraprofessionals to work in their home villages, a multisectoral statewide suicide prevention council and, most recently, the Alaska Suicide Prevention Plan.

Greenland, however, didn't begin to take suicide prevention seriously until 2003, when Health Minister Asii Chemnitz Narup saw the need to move beyond scattered interventions and develop a coherent strategy along the lines recommended by the World Health Organization. And, after forming the multisectoral Isaksimagit Inuusirmi Katujjiqatigiit (Embrace Life Council), based loosely on the Alaskan model, the fledgling Government of Nunavut publicly committed itself in 2004 to preparing “a suicide prevention strategy with a focus on wellness.” However, no work was done to develop such a plan until January of 2007, when *Nunatsiaq News*, the more serious of the territory's two weekly newspapers, began

asking embarrassing questions about the government's failure to deliver on its promise. A bland, safe, and utterly uninspired "strategy" was quickly whipped up;¹⁴ it contained a modest to-do list of measures that would already have been enacted if the government had begun its work back in 2004.

Far more can and should be done to prevent suicidal behaviour in Inuit communities. The spokesperson for the Inuit Circumpolar Youth Council, whom I quoted at the beginning of this chapter, told the United Nation's Permanent Forum on Indigenous Issues that "mainland" Canada, Denmark and the United States would declare "national emergencies" if they had "suicide rates comparable to those of their Inuit populations." The situation would be considered intolerable. It is high time that public health emergencies are declared in and by the Inuit regions themselves. All levels of government in those jurisdictions should aspire to become world leaders in culturally appropriate suicide prevention.

Seven Working Hypotheses

1. Suicide among Inuit is every bit as complex a phenomenon as suicide among non-Inuit, and it should be treated as such. I avoid the term "Inuit suicide" because it suggests that there is something uniquely Inuit about what is happening. "Suicide among Inuit" puts the emphasis where I believe it belongs — on a universal problem occurring in a specific context.
2. We should resist explanations of elevated rates of suicide among Inuit that are simplistic and/or that externalize causality and responsibility. Examples of the first type of explanation are boredom, demonic possession and the cycles of the moon. An example of the second type of explanation is a polemic that blames the state (e.g. Tester and McNicoll 2004). While historical colonialism and ongoing internal colonialism are, in my opinion, important contributing factors to suicide among Inuit, we must not reduce it to a problem brought about entirely by outsiders. Historic oppression is a fact, but so is the internalization of oppression by the oppressed. Simply blaming the state is fundamentally disempowering. How does such an approach help communities, families and individuals figure out how best to heal themselves?

3. We need to challenge the simulacra that have developed around suicide among Inuit. Not all historic suicide among Inuit was of the type “a sick and/or older person ends his or her life so as not to be a burden to the group.” One of the earliest records of a suicide by an Inuk is a Greenlandic narrative that can be dated to between 1787 and 1789.¹⁵ It is the story of Savannguaq, a young wife and mother who drowned herself after enduring psychological abuse from an old woman who shared a house with her and her husband, who was away hunting. The husband and his father later learned of the circumstances that had led to Savannguaq’s suicide and took revenge on the woman. The story could have been written by Shakespeare; there is nothing uniquely Inuit about it. Similarly, not all present-day suicides by Inuit in Nunavut are by young men who have recently suffered the breakup of a relationship. There are also suicides by teenaged girls; men and women in their thirties, forties, fifties and sixties (and, in Greenland, in their seventies and eighties); and people with serious mental illnesses — as there are in all human societies.
4. Social determinants are the only logical explanation for the pattern of suicide transition that occurred across the Inuit world beginning in Alaska in the 1960s. A significant social determinant of elevated rates of suicide among Inuit is the intergenerational transmission of historical trauma, much of which is rooted in processes and events that occurred (or were particularly intense) during the initial period of active colonialism at the community level. The temporal sequence in which these internal colonial processes affected Inuit across the Arctic was replicated some years later by rapid and significant increases in suicidal behaviour, particularly among young men. The higher rates of suicide in some subregions of the Inuit world can be attributed, at least in part, to the higher levels of unresolved historical trauma existing in those subregions as a result of actions by the state, such as coerced sedentarization and the imposition of colonial education systems. That being said, we must keep in mind the caution expressed by Laurence Kirmayer and his colleagues: “The location of the origins of trauma in past events may divert attention from the realities of a constricted present and murky future, which are the oppressive realities for many aboriginal young people living in chaotic and demoralized communities” (Kirmayer, Simpson, and Cargo 2003).
5. Living conditions in Nunavut communities today are important social determinants of elevated rates of suicide. The high rate of suicide among Inuit in Nunavut is not a stand-alone problem but a part of the widespread social suf-

fering that prevails in Inuit communities today. Nunavut's high suicide rate should not be viewed in isolation. It should be seen as a symptom of a society experiencing rapid and difficult social, cultural and economic change under specific historical and political conditions. This is a society that is suffering from high levels of violence and abuse; high rates of unemployment; high levels of unresolved trauma of various types; high rates of substance abuse; a 75 percent school dropout rate; and widespread poverty (80 percent of the Inuit population of Igloolik received income support at some point in 2006). One important mode of intergenerational transmission of historical trauma is family dysfunction, which impacts the social and emotional well-being of children in many, but by no means all, families through high rates of adverse childhood experiences.

6. We must learn from the hard-earned lessons that have come out of research conducted elsewhere in the world:

- ◆ Suicidal behaviour cannot be understood in isolation from its social context.
- ◆ Suicide is a complex, multicausal phenomenon.
- ◆ There is a wide range of possible risk factors — for example, biological issues; bullying; depression; emotional, physical and sexual abuse; mental disorders; and substance use.
- ◆ Comorbidity (multiple risk factors operating simultaneously) significantly increases risk.
- ◆ It is possible to identify risk and protective factors that are significant for a specific population or subpopulation.
- ◆ A sense of hopelessness is present in almost all suicides, regardless of any other factors that may be present.

7. We must learn from research that has been conducted on suicide prevention. Beautrais and colleagues found that “there is relatively little strong evidence for the efficacy of many existing suicide prevention initiatives, and this area has frequently been captured by strong claims about the effectiveness of programmes that have not been adequately evaluated” (2007). But after reviewing the various credible evaluations that have been made, they were able to develop “a four-fold classification of suicide prevention initiatives based on an evidence hierarchy”:

Initiatives for which *strong evidence* of effectiveness exists — Initiatives evaluated using a randomised trial design and there is consistent evidence of programme efficacy.

Initiatives that appear *promising* — Some evidence of programme effectiveness exists, but this evidence is not sufficient or consistent enough to classify the findings as strong.

Initiatives for which no evidence of effectiveness exists but which *may be beneficial* in suicide prevention — These initiatives span a range of macrosocial, mental health, family support, and related programmes that are believed to be beneficial in suicide prevention by providing a context for encouraging positive health and wellbeing, but for which no direct evidence of suicide-specific programme effectiveness exists.

Initiatives for which evidence of *harmful* effects exist — Concerns have been raised regarding their safety and there is reason to believe that they may risk increasing (rather than decreasing) rates of suicidal behaviour. (Beautrais et al. 2007)

Beautrais' team listed three areas in which strong evidence of effectiveness exists: training for medical practitioners; restriction of suicide methods; and "gatekeeper" education (suicide alertness and intervention training).

Initiatives that appear promising include providing support after suicide attempts; pharmacotherapy for mental illness; psychotherapy and psychosocial interventions for mental illness; public awareness education and mental health literacy; screening for depression and suicide risk; crisis centres and crisis counselling; school-based competency-promoting and skill-enhancing programs; and support for family, extended family and friends bereaved by suicide.

Initiatives for which no evidence of effectiveness exists but that may be beneficial in suicide prevention include improving control of alcohol; community-based mental health services and support services; and family support for families facing stress and difficulty.

Initiatives for which evidence of harmful effects exist include school-based programs that focus on raising awareness about suicide; public health messages about suicide and media coverage of suicide issues; no-harm and no-suicide contracts; and recovered or repressed memory therapies.

Beautrais and colleagues concluded,

While many national policies for suicide prevention are undertaken as public health campaigns with an explicit focus on universal, population-wide interventions, our current knowledge about suicide causation and prevention suggests that perhaps the most effective approach to reducing suicide may be highly targeted interventions that focus on those who have made suicide attempts who have a long term elevated risk of further suicidal behaviour, and a range of poor psychosocial and mental health outcomes which are likely to precipitate further suicide attempts. (2007)

C o n c l u s i o n s

I HAVE FIVE TENTATIVE CONCLUSIONS. THE FIRST IS THAT UNLESS APPROPRIATE AND concerted efforts are made, it is entirely possible that suicide rates in Nunavut will remain at or near their current levels for the foreseeable future. After peaking in 1986, Greenland's overall suicide rate has remained very high for the last 20 years. There is so much accumulated loss, pain and trauma in Nunavut communities already — it is hard to imagine what these communities would be like after 20 more years of tragically high rates of suicides.

Second, experience from elsewhere in the world tells us that effective suicide intervention and prevention are possible. The World Health Organization believes that developing a comprehensive suicide prevention strategy is an essential first step, and it has formulated a set of guidelines for the preparation of such strategies. Canada, however, lags behind the Nordic countries, the United States¹⁶ and other countries (Australia,¹⁷ New Zealand,¹⁸ Scotland¹⁹ and Wales,²⁰ among others) in putting a national suicide prevention strategy in place. It took decades for the governments of Alaska and Greenland to develop and implement their suicide prevention strategies. Despite Nunavut's high suicide rate, the government led by Premier Paul Okalik failed to deliver a promised suicide prevention strategy until shamed into doing so by the media; and it was a far weaker document than those of Alaska and Greenland. It was developed in isolation (that is, without consultation with Inuit representative organizations or the Embrace Life Council), it made no effort to apply the lessons learned by researchers and other jurisdictions, and it lacked a coherent focus.

Third, Canada is a world leader in acknowledging and addressing the inter-generational transmission of historical trauma in indigenous communities — the legacy of the residential schools. As a result of research conducted by (and recommendations made by) the Royal Commission on Aboriginal Peoples, the federal government created and funded the Aboriginal Healing Foundation (AHF) to address the historical trauma resulting from residential schools. Healing programs funded by the AHF have made a tremendous difference to indigenous peoples living in communities from coast to coast. Nunavut needs programs to heal the historical trauma resulting from sedentarization and community formation.

Fourth, immediate action needs to be taken to reduce poverty and improve living conditions in Nunavut communities. No society whose school

system fails 75 percent of the students who enter it can expect to have a low rate of suicide among its marginalized young people.

My final conclusion is that there is cause for optimism. There is no reason why Nunavummiut and other Inuit should suffer decades of elevated rates of suicide among their young men — it is possible to break the cycle of transmission of historical trauma. We must quickly apply suicide prevention lessons learned in other jurisdictions to Nunavut, starting with an aggressive program of gatekeeper education (suicide alertness and intervention training). The fledgling Nunavut government, with its limited resources, may not be capable of solving the problem on its own. There is an urgent need for the Government of Canada to acknowledge the nature and scope of the problems and to commit the resources required to address them. In a rich country like Canada, the state is quite capable of significantly influencing the social determinants of mental health if it chooses to do so. It is high time that it did.

Notes

- 1 Russia, in the case of the Inuit of Chukotka; the United States, in the case of the Inuit of Alaska; Canada, in the case of Inuit ranging from the Inuvialuit of the Mackenzie Delta right across to the Inuit of the Labrador coast; and Denmark, in the case of the Greenlanders.
- 2 Efforts by the Greenland Home Rule government failed to convince either Pope or the *Huffington Post* to acknowledge this egregious factual error.
- 3 By comparison, the most recent suicide rate per 100,000 for Denmark is 13.6 (2001); for Canada, 11.3 (2004); and for the US, 11.0 (2005) (see World Health Organization, http://www.who.int/mental_health/prevention/suicide/country_reports/en/index.html (accessed March 29, 2009)).
- 4 “The settlement of a nomadic people in a permanent place of habitation” (*Shorter Oxford English Dictionary* 2002).
- 5 Most of the statistical data on rates of death by suicide among Greenlanders used here were developed by Peter Bjerregaard of Denmark’s National Institute of Public Health from raw data obtained from Greenland’s Embedslægeinstitutionen (chief medical officer) and Statistics Greenland. The statistical data on rates of death by suicide among “Alaska Natives” were obtained from the Alaska state government’s Division of Vital Statistics. It is unfortunately not possible to unpack statistics aggregated for Alaska Natives to obtain data specific to the state’s Inupiat and Yu’pik populations. The statistical data on rates of death by suicide among Inuit in the different regions of Arctic Canada were developed by the author from raw data obtained from a variety of official sources.
- 6 We need to differentiate between “active” and “passive” colonialism, as some Inuit populations had been colonized for several generations. However, in such cases the colonial powers had not attempted to substantially reorganize Inuit society because they (e.g., the Danes) depended on the persistence of the communal mode of production to ensure a supply of oils from marine mammal products and other products harvested from the land and the sea.
- 7 No reliable data are available for the Inuit of Chukotka.
- 8 “Urban Alaska” is defined as Anchorage, Kenai Peninsula Borough, Mat-Su Borough, Fairbanks Borough and Juneau.
- 9 See Lyng (2000) for a summary of her many contributions to medical journals.
- 10 That being said, it should be noted that different people take their lives for different reasons. Just as some children who grow up in deeply dysfunctional homes survive and thrive later in life, others who grow up in stable and happy homes and who have few adverse childhood experiences later die by suicide. It is important to keep this in mind when discussing suicide in societies like that of Inuit, who have been deeply traumatized by several decades of high suicide rates.
- 11 See the publications link on the left-hand side of the study’s home page (<http://www.chmeds.ac.nz/research/chds/>) for a list of the journal articles that CHDS has produced.
- 12 Their data come from about as non-Inuit a source as one can imagine: a retrospective cohort study of 9,460 adult health maintenance organization members in a primary care clinic in San Diego, California (Centers for Disease Control and Prevention 2005). The members of the HMO completed a survey addressing a variety of health-related concerns, which included standardized assessments of lifetime and recent depressive disorders, childhood abuse and household dysfunction — but there’s no reason to suspect that the findings don’t apply to Inuit as much as they do to any other population.
- 13 We should, however, keep in mind that all suicides occur within both a medical context (that is, the complex biological interactions taking place within the brain of the victim) and the social context within which the victim developed and then lived his or her life.

- 14 No suicide prevention strategy in Nunavut should be taken seriously if it fails to include an evaluation of the counselling resources available to the residents of Nunavut communities and of the support provided by the territorial government to the grassroots suicide prevention committees that exist in many communities.
- 15 "The Cute Savannuaq Who Was Exposed to a Pressure That Led to Her Suicide, and When Habakuk Met an Umiaq with Starving People from the South," a narrative recorded by the merchant Jens Kreuzmann (1828-99) and published in *Thisted* (1997).
- 16 See US Department of Health and Human Services (2001) and Centers for Disease Control (<http://www.cdc.gov/ncipc/dvp/Suicide/>) for the country as a whole; and Suicide Prevention Resource Center (<http://www.sprc.org/stateinformation/plans.asp>) for the individual states.
- 17 See Australian Government Department of Health and Aging, "Living is for Everyone" (www.livingisforeveryone.com.au/) and "Beyondblue: The National Depression Initiative" (www.beyondblue.org.au).
- 18 See New Zealand Ministry of Health, "Suicide Prevention in New Zealand" (www.moh.govt.nz/suicideprevention).
- 19 See NHS Health Scotland "Choose Life" (www.chooselife.net/home/Home.asp and www.chooselife.net/Evidence/ResearchandEvaluation.asp).
- 20 See Welsh Assembly Government (2008) (<http://new.wales.gov.uk/consultations/healthsocialcare/talktome/?lang=en>).

References

- Anda, Robert F., Vincent J. Felitti, J. Douglas Bremner, John D. Walker, et al. 2006. "The Enduring Effects of Abuse and Related Adverse Experiences in Childhood: Convergence of Evidence from Neurobiology and Epidemiology." *European Archives of Psychiatry and Clinical Neuroscience* 256 (3): 174-86.
- Arsenault-Lapierre, Geneviève, Caroline Kim, and Gustavo Turecki. 2004. "Psychiatric Diagnoses in 3,275 Suicides: A Meta-analysis." *BMC Psychiatry* 4:37.
- Beautrais, Annette, David M. Fergusson, Carolyn Coggan, Catherine Collings, et al. 2007. "Effective Strategies for Suicide Prevention in New Zealand: A Review of the Evidence." *New Zealand Medical Journal* 120:1251.
- Belkin, Douglas. 2007. "Dissenters in Canada's Arctic: Government Move to Beef up Military Makes Inuit Wary." *Wall Street Journal*, October 12.
- Berthelsen, Alfred. 1935. "Grønlandsk medicinsk statistik og nosografi I: Grønlands befolkningsstatistik 1901-30." *Meddelelser om Grønland* 117 (1): 1-83.
- Bjerregaard, Peter, and Inge Lynge. 2006. "Suicide: A Challenge in Modern Greenland." *Archives of Suicide Research* 10 (2): 209-20.
- Boas, Franz. 1888. "The Central Eskimo." In *Sixth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution*, by J.W. Powell. Elibron Classics Replica ed. Boston: Adamant Media Corporation, 2006.
- Cavanagh, Jonathon T.O., A. Carson, M. Sharpe, and S.M. Lawrie. 2003. "Psychological Autopsy Studies of Suicide: A Systematic Review." *Psychological Medicine* 33 (3): 395-405.
- Centers for Disease Control and Prevention. 2005. "Adverse Childhood Experiences Study." Collaboration between the Centers for Disease Control, and Prevention and Kaiser Permanente's Health Appraisal Clinic. US Department of Health and Human Services. <http://www.cdc.gov/nccdphp/ACE/index.htm>
- Chapman, Daniel P., Charles L. Whitfield, Vincent J. Felitti, Shanta R. Dube, et al. 2004. "Adverse Childhood Experiences and the Risk of Depressive Disorders in Adulthood." *Journal of Affective Disorders* 82 (2): 217-25.
- Christchurch Health and Development Study (CHDS). n.d. "Christchurch Health and Development Study: Introduction." Christchurch: CHDS, University of Otago. Accessed February 17, 2009. <http://www.chmeds.ac.nz/research/chds/>

- Csonka, Yvon. 2005. "Changing Inuit Historicities in West Greenland and Nunavut." *History and Anthropology* 16 (3): 321-34.
- Dube, Shanta R., Robert F. Anda, Vincent J. Felitti, Daniel P. Chapman, et al. 2001. "Childhood Abuse, Household Dysfunction, and the Risk of Attempted Suicide throughout the Life Span." *Journal of the American Medical Association* 286 (24): 3089-96.
- Fergusson, David M., and Joseph M. Boden. 2008. "Cannabis Use and Later Life Outcomes." *Addiction* 103 (6): 969-76.
- Goldney, Robert W. 2003. "A Novel Integrated Knowledge Explanation of Factors Leading to Suicide." *New Ideas in Psychology* 21:141-6.
- Haggarty, John M., Zack Cernovsky, Michel Bedard, and Harold Merskey. 2008. "Suicidality in a Sample of Arctic Households." *Suicide and Life-Threatening Behavior* 38 (6): 678-96.
- Hawton, Keith, ed. 2005. *Prevention and Treatment of Suicidal Behaviour: From Science to Practice*. Oxford: Oxford University Press.
- Kirmayer, Laurence J., Christopher M. Fletcher, and Lucy J. Boothroyd. 1997. "Inuit Attitudes toward Deviant Behaviour: A Vignette Study." *Journal of Nervous and Mental Disease* 185 (2): 78-86.
- Kirmayer, Laurence J., C. Simpson, and M. Cargo. 2003. "Healing Traditions: Culture, Community and Mental Health Promotion with Canadian Aboriginal Peoples." *Australasian Psychiatry* 11:15-23.
- Kraus, Robert F. 1971. "Changing Patterns of Suicidal Behaviour in North Alaska Eskimo." *Transcultural Psychiatric Research Review* 9:69-71.
- Kraus, Robert F., and Patricia A. Buffler. 1979. "Sociocultural Stress and the American Native in Alaska: An Analysis of Changing Patterns of Psychiatric Illness and Alcohol Abuse among Alaska Natives." *Culture, Medicine and Psychiatry* 3 (2): 111-51.
- Langlois, Stéphanie, and Peter Morrison. 2002. "Suicide Deaths and Suicide Attempts." *Health Reports* 13 (2): 9-22.
- Law, Samuel F., and E. Miles Hutton. 2007. "Community Psychiatry in the Canadian Arctic: Reflections from a 1-Year Continuous Consultation Series in Iqaluit, Nunavut." *Canadian Journal of Community Mental Health* 26 (2): 123-40.
- Leineweber, Markus. 2000. "Modernization and Mental Health: Suicide among the Inuit in Greenland." Ph.D. diss., University of Nijmegen.
- "Linking School and Suicide: Did You Know?" 1991. *The Journal*. CBC.ca, CBC Digital Archives, broadcast date September 17. Toronto: CBC. Accessed February 13, 2009. <http://archives.cbc.ca/society/education/clips/2675/>
- Lynge, Inge. 2000. *Psykliske lidelser i det grønlandske samfund [Psychological Suffering in Greenlandic Society]*. Århus: Psykiatrisk Hospital i Århus, Institut for Psykiatrisk Grundforskning.
- Mann, J. John, Alan Apter, José M. Bertolote, Annette L. Beautrais, et al. 2006. "Suicide Prevention Strategies: A Systematic Review." *Journal of the American Medical Association* 294 (16): 2064-74.
- Mitchell, Penny. 2002. "Yarrabah: A Success Story in Community Empowerment." *Youth Suicide Prevention Bulletin* 4:16-23.
- Pope, Carl. 2007. "A Tale of Three Arctics." *Huffington Post*, September 10.
- Rasmussen, Knud. 1929. *The Intellectual Culture of the Iglulik Eskimos*. Vol. 7, pt. 1 of *Report of the Fifth Thule Expedition, 1921-24*. Copenhagen: Gyldensalske Boghandel, Nordisk Forlag.
- Schilling, Elizabeth A., Robert H. Aseltine, and Susan Gore. 2007. "Adverse Childhood Experiences and Mental Health in Young Adults." *BMC Public Health* 7:30.
- Steckley, John L. 2003. "Aboriginal Voices and the Politics of Representation in Canadian Introductory Sociology Textbooks." Ed.D. diss., University of Toronto.
- Sullivan, Alice, and Christine Brems. 1997. "The Psychological Repercussions of the Sociocultural Oppression of Alaska Native Peoples." *Genetic, Social, and General Psychology Monographs* 123 (4): 411-40.

- Swenson, Michael D. 2001. "A Story about Suicide in the Arctic." *Journal of the American Medical Association* 286 (8): 919.
- Tester, Frank J., and Paule McNicoll. 2004. "Isumagijaksaq: Mindful of the State: Social Constructions of Inuit Suicide." *Social Science & Medicine* 58 (12): 2625-36.
- Thisted, Kirsten, ed. 1997. *Fortællinger & akvareller [Narratives and Watercolours]*. Nuuk: Atuakkiorfik.
- Turecki, Gustavo, and Aleksandra Lalovic. 2005. "The Biology and Genetics of Suicidality." In *Biology of Depression*, edited by Julio Licinio. Weinheim: Wiley-VCH Verlag GmbH.
- US Department of Health and Human Services. 2001. *National Strategy for Suicide Prevention: Goals and Objectives for Action*. Accessed March 28, 2009. <http://download.ncadi.samhsa.gov/ken/pdf/SMA01-3517/SMA01-3517.pdf>
- Welsh Assembly Government. 2008. *Talk to Me: A National Action Plan to Reduce Suicide and Self Harm in Wales 2008-2013*. Accessed March 28, 2009. <http://www.wales.nhs.uk/documents/talktomee%5B1%5D.pdf>

The Art of the State IV
Northern Exposure:
Peoples, Powers
and Prospects in
Canada's North

Frances Abele,
Thomas J. Courchene,
F. Leslie Seidle and
France St-Hilaire, editors

Copyright ©

The Institute for Research on Public Policy (IRPP) 2009
All rights reserved

Printed in Canada
Dépôt légal 2009

National Library of Canada
Bibliothèque nationale du Québec

LIBRARY AND ARCHIVES CANADA CATALOGUING IN
PUBLICATION

Northern exposure: peoples, powers and prospects in
Canada's North / edited by France Abele ... [et al.].

(The art of the state; IV)

Proceedings of the conference The art of the state IV,
held in Montebello, Québec, Oct. 25-27, 2007.

Includes bibliographical references.
ISBN 978-0-88645-205-6

I. Canada, Northern. I. Abele, Frances II. Institute for
Research on Public Policy III. Series: Art of the
state (Montréal, Québec) IV

FC3956.N676 2009 971.9'04 C2009-901920-5

PROJECT DIRECTORS

F Leslie Seidle and France St-Hilaire

COPY EDITOR

Mary Williams

PROOFREADER

Barbara Czarnecki

EDITORIAL COORDINATOR

Francesca Worrall

COVER DESIGN AND INTERIOR DESIGN

Schumacher Design

COVER ILLUSTRATION

Normand Cousineau

PHOTO COVER

Canadian Press

PRODUCTION AND LAYOUT

Chantal Létourneau

PUBLISHED BY

The Institute for Research on Public Policy (IRPP)
l'Institut de recherche en politiques publiques
1470 Peel Street, Suite 200
Montreal, Quebec H3A 1T1

ix

Acknowledgements

NORTHERN EXPOSURE

3

**Frances Abele, Thomas J. Courchene,
F. Leslie Seidle and France St-Hilaire**

Introduction and Overview

19

Frances Abele

*Northern Development:
Past, Present and Future*

**SOVEREIGNTY, ENVIRONMENTAL
CHANGE AND SCIENCE**

69

Sheila Watt-Cloutier

A Principled Path

77

Rob Huebert

*Canada and the Changing
International Arctic: At the
Crossroads of Cooperation
and Conflict*

107

Franklyn Griffiths

*Canadian Arctic Sovereignty: Time
to Take Yes for an Answer on the
Northwest Passage*

137

Violet Ford

*The Inuit and Issues of Arctic
Sovereignty*

141

Michael T. Bravo

*Arctic Science, Nation-Building and
Citizenship*

169

Hanne K. Petersen

*The Arctic: A Model for Science
Cooperation?*

**ABORIGINAL AND PUBLIC
GOVERNANCE**

187

Doug McArthur

*The Changing Architecture of
Governance in Yukon and the
Northwest Territories*

233

**Stephanie Irlbacher-Fox and
Stephen J. Mills**

*Living Up to the Spirit of Modern
Treaties? Implementation and
Institutional Development*

259

George Braden

Governance in the Western North

267

John B. Zoe

Gonaewo — Our Way of Life

279

Danny Gaudet

*Self-Government, the Northern
Environment and Aboriginal Culture*

283

Graham White

*Nunavut and the Inuvialuit
Settlement Region: Differing Models
of Northern Governance*

317

Thierry Rodon and Minnie Grey

*The Long and Winding Road to Self-
Government: The Nunavik and
Nunatsiavut Experiences*

345

James P. Feehan

Natural Resource Devolution in the Territories: Current Status and Unresolved Issues

ECONOMIC DEVELOPMENT

375

Terry Fenge

Economic Development in Northern Canada: Challenges and Opportunities

389

Nellie J. Cournoyea

Navigating and Managing Economic, Environmental and Social Change in the Inuvialuit Settlement Region

395

Tom Hoefer

Diamond Mining in the Northwest Territories: An Industry Perspective on Making the Most of Northern Resource Development

415

Gordon Erlandson

Aligning Petroleum Sector Activities with Northern Regulatory Requirements

EDUCATION AND HUMAN**CAPITAL**

427

Greg Poelzer

Education: A Critical Foundation for a Sustainable North

467

Jack Hicks

Toward More Effective, Evidence-Based Suicide Prevention in Nunavut

VOICES OF THE NEW GENERATION

499

Udloriak Hanson

The Next Generation

501

Elaine Alexie

Arctic Indigenous Peoples and the Reconciliation of Past and Present

507

George Berthe

We Inuit Must Unlock Our Success Instinct

509

Laura MacKenzie

Global Warming and the Threat to Inuit Culture

511

Natan Obed

Inuit Values and the Implementation of Land Claims Agreements

515

Aynslie Ogden

Climate Change and Sustainable Management of Yukon Forest Resources

LOOKING FORWARD:**NORTHERN POLICY IN CANADA****523****Mary Simon***Climate Change, Sovereignty and
Partnership with the Inuit***529****Richard J. Van Loon***Challenges and Expectations in the
Canadian North***545****Tony Penikett***A Fog Hangs over Arctic Waters***561****Frances Abele, Thomas J. Courchene,
F. Leslie Seidle and France St-Hilaire***The New Northern Policy Universe***595****Notes on contributors**