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Current Approaches to Aboriginal Youth Suicide Prevention

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TABLE OF CONTENTS

Preface & Acknowledgment	6
Summary	7
1. Introduction.....	9
1.1. Objectives	
1.2. Outline	
1.3. Methods	
1.4. Terminology	
1.5. Levels and Targets of Intervention	
2. Background.....	12
2.1. Patterns and Prevalence of Suicide	
2.1.1 Global Patterns of Suicide	
2.1.2 Patterns of Suicide in Canada	
2.1.3 Patterns of Suicide among Indigenous People Outside Canada	
2.2. Causes of Suicide: Risk and Protective Factors	
2.2.1 General Risk Factors	
2.2.2 Gender Related Risk Factors	
2.2.3 Risk factors Specific to Adolescents and Young Adults	
2.2.4 Protective Factors	
2.2.5 Summary of Risk Factors	
2.3. Approaches to Suicide Prevention	
2.4. Previous Reports on Aboriginal Youth Suicide Prevention	
3. Suicide Prevention Programs and Interventions.....	27
3.1. Education and Awareness Programs	
3.1.1. School-based Programs	
3.1.1.1 <i>Agir Ensemble pour Prévenir le Suicide chez les jeunes</i>	
3.1.1.2 Psychoeducation in Belgium	
3.1.1.3 Lifelines New Jersey	
3.1.1.4 The South Elgin High School Suicide Prevention Project	
3.1.1.5 SOS Suicide Prevention Program	
3.1.1.6 Raising Awareness of Personal Power	
3.1.1.7 Analysis	
3.1.2. Gatekeeper Training Programs	
3.1.2.1 BC Suicide Prevention Information and Resource Center	
3.1.2.2 Gatekeeper Training Program, New South Wales	
3.1.2.3 Suicide Prevention Forums, New South Wales	
3.1.2.4 CD ROM and Video Training as Suicide Prevention in Nunavut	
3.1.2.5 Suicide Action Montreal: Three Day Training Program	

3.1.2.6	STORM Program	
3.1.2.7	Gatekeeper Training Program, Georgia	
3.1.2.8	Maine Suicide Prevention	
3.1.2.9	Analysis	
3.1.3.	Population and Community-based Programs	
3.1.3.1	Stop Youth Suicide Campaign, Kentucky	
3.1.3.2	The Nuremberg Alliance Against Depression, Germany	
3.1.3.3	Suicide Prevention Campaign, Ohio	
3.1.3.4	U.S. Air Force Suicide Intervention Program	
3.1.3.5	Community Based Suicide Prevention Program, Alaska	
3.1.3.6	Western Athabaskan Tribal Nation, New Mexico	
3.1.3.7	Analysis	
3.2.	Screening Programs	
3.3.	Treatment Interventions	
3.3.1	Crisis teams and crisis lines	
3.3.2	Primary Care and psychotherapeutic interventions	
3.3.3	Multi systemic and multi-modal approaches to interventions	
3.3.4	Interventions	
3.4.	Postvention	
3.4.1	Maine Bureau of Health Initiative for Suicide Prevention	
3.4.2	The Baton Rouge Crisis Intervention Center	
3.4.3	Group Therapy for Children Bereaved by Suicide, Laval	
3.4.4	Analysis	
3.5.	Means Restriction	
3.6.	Media Regulation	
3.7.	Comprehensive or Multilevel Programs	
4.	Aboriginal Suicide Prevention.....	64
4.1.	Promising Practices in Aboriginal Suicide Prevention	
4.2.	Cultural Adaptation of Suicide Prevention Programs	
4.3.	Inuit	
4.3.1	Frameworks and Initiatives	
4.3.2	Videoconferencing Consultations, Nain, Labrador	
4.4.	First Nations	
4.4.1	The American Indian Life Skills Development Curriculum	
4.4.2	Zippy and Nokitan II, Quebec	
4.4.3	Aboriginal Youth Suicide Prevention Strategy of Alberta	
4.4.4	First Nations Action and Support Team, British Columbia	
4.4.5	Two Eyed seing, Mik’Maq, Cape Breton	
4.5.	Métis	
5.	Suicide Prevention Strategies.....	77
5.1.	Comparing National Strategies and Practices in Suicide Prevention	
5.2.	Australia	
5.2.1	The First National Mental Health Strategy	
5.2.2.	National Youth Suicide Prevention Strategy	

5.2.3 The Second National Mental Health Strategy	
5.2.4 Policy and Programs for Western Australia	
5.2.5 Summary	
5.3. The United States	
5.4. New Zealand	
5.4.1 The First National Strategy on Youth Suicide Prevention	
5.4.2 The Second National Strategy on Suicide Prevention	
5.4.3 Best Strategies for Suicide Prevention	
5.5. Greenland	
5.6. Summary and Analysis	
6. Conclusion	95
6.1 Identifying What Works	
6.2 Common Interventions	
6.3 Comprehensive Approaches to Suicide Prevention	
6.4 General Principles	
6.5 Recommendations	
Appendix A. Summary of Programs with Evaluations.....	105
Appendix B. Promising Programs and Interventions	111
Appendix C. Consultants	124
References.....	126

Tables

Table 1. Risk and Protective Factors for Aboriginal Youth Suicide	19
Table 2. Evidence-Based Suicide Prevention Programs.....	22
Table 3. School-Based Education and Awareness Programs	35
Table 4. Gatekeeper Training Programs	43
Table 5. Population and Community-Based Initiatives	50
Table 6. Postvention Programs	59
Table 7. Comparison of National Suicide Prevention Strategies.....	79

Figure

Figure 1. Factors That Contribute to Suicide Risk	20
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PREFACE & ACKNOWLEDGEMENT

This review was undertaken under a contract with the First Nations and Inuit Health Branch of Health Canada by Laurence Kirmayer with the assistance of staff and students attached to the Culture and Mental Health Research Unit (CMHRU) of the Department of Psychiatry, Jewish General Hospital. The CMHRU conducts research on the mental health of Indigenous peoples, mental health services for immigrants and refugees, cultural determinants of health behaviors, psychiatry in medicine, and the anthropology of psychiatry. The CMHRU is the lead centre for the National Network for Aboriginal Mental Health Research (NAMHR), which greatly facilitated this work.

The Network for Aboriginal Mental Health Research (NAMHR) is a collaboration between community health practitioners and academic researchers across Canada, funded by the Institute for Aboriginal Peoples Health of the CIHR. The Network includes researchers, mental health practitioners, public health care workers, educators and front-line health and social service workers in Aboriginal organizations and communities who collaborate to rethink mental health theory and practice, and to insure the effective exchange of knowledge and research results that can benefit Aboriginal communities.

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It is our hope that this document will be useful to all who are concerned with the problem of suicide in Aboriginal communities.

Laurence J. Kirmayer

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SUMMARY

Across Canada, many Aboriginal communities continue to suffer from elevated rates of youth suicide. Although much can be learned from research on the general population there are important gender, age, social and cultural variations. Therefore, there is a need to develop and assess suicide prevention approaches specific to Aboriginal youth.

Our review of the published and gray literature (2003—2008) on current suicide prevention strategies for Aboriginal youth in Canada and comparable populations in the US, Australia, New Zealand and Greenland, identified the following general principles guiding best practices:

1. Suicide prevention initiatives should address the local Aboriginal population as a whole, with a focus on groups that are at elevated risk for negative outcomes including youth and people living in rural and remote locations. These groups often experience additional barriers to accessing services.

2. Suicide prevention initiatives should be guided by the following good practice principles:

- use a comprehensive multidimensional approach involving indicated, selective and universal targeting, a spectrum of interventions, a range of settings and sectors, and multiple levels of action (individual, family, community);
- ensure effective intervention by basing programs on the best available research evidence, including extrapolating from studies on the general population. Evidence necessary to develop an effective overarching strategy includes research on risk and protective factors, evaluation of intervention efficacy and practice-based evaluation of program effectiveness;
- ensure accessibility of services and programs for rural and remote communities through mobile crisis and support teams and networking strategies;
- enhance engagement of marginalized and hard-to-reach individuals within communities through active outreach;
- build capacity at all levels of service systems, respecting local social ecologies and cultural values and strengthening resources grounded in Aboriginal knowledge and traditions.

3. Suicide prevention initiatives should be community-based, developed and implemented within the context of a comprehensive and systematic policy framework that supports partnerships between sectors of government and communities.

4. In order to base practice on evidence, the quality and quantity of suicide and mental health research within the indigenous population must be improved. This should involve participatory action research projects where communities develop (or adapt) interventions in collaboration with researchers. Aboriginal communities must be centrally involved in

the tailoring of existing general population interventions in order to ensure they are culturally appropriate.

Although there are still very few evaluation studies that demonstrate that suicide prevention programs actually work, there is broad consensus that certain specific types of interventions are likely to be effective. The specific programs or interventions that appear to be most successful include:

- (1) restrict access to common means of suicide;
- (2) provide school-based programs that teach coping skills to students, as well as training teachers and staff how to recognize individuals at risk and refer them to counselling or mental health services;
- (3) train youth as peer counsellors or 'natural helpers' to those at risk;
- (4) train other individuals with whom youth come into regular contact (teachers, nurses, primary care providers, clergy, parents) as 'gatekeepers' so that they can recognize and refer youth at risk;
- (5) ensure ready access to a range of mental health services including counseling and psychotherapy;
- (6) mobilize the community to come together to develop suicide prevention programs and crisis intervention teams;
- (7) provide culturally appropriate support for families to promote positive parenting from early childhood through adolescence;
- (8) develop family and community activities that bring youth and elders together to share cultural knowledge, values and perspectives; and
- (9) ensure that mass media portray suicide and other community problems in appropriate ways;
- (10) improve communication, knowledge translation and coordination of suicide prevention and mental health promotion activities to build on local, regional and national strengths.

The key components of successful programs seem to be that they are community-based and involve active partnerships across sectors. These partnerships coordinate activities, have a well-worked out protocol to address the issues at hand, and can respond quickly to crises.

There is a need to improve communications strategies that support knowledge exchange in suicide prevention. Communities may need assistance in establishing the specific human and material resources necessary to set up appropriate programs and interventions. They may also need assistance in evaluating the success of programs. A national network should be developed for supporting suicide prevention and mental health promotion activities among Aboriginal youth across the country, especially in rural and remote communities.

1. INTRODUCTION

1.1. Objectives

The present review was undertaken under contract with Health Canada First Nations Inuit and Health Branch as part of the National Aboriginal Youth Suicide Prevention Strategy. The aim was to review and synthesize the available information on effective suicide prevention strategies applicable to the Aboriginal youth in Canada. This review builds on an earlier report that provided comprehensive summaries of the literature (Kirmayer et al., 2007). In this report, we expand our previous work in four ways: (i) we conducted an updated review of the scientific literature with a focus on publications since 2003-2004; (ii) we made a concerted effort to include unpublished reports and policy documents (i.e. the grey literature); (iii) we reviewed national and regional policies relevant to the prevention of suicide among indigenous groups; (iv) we examined Aboriginal youth suicide prevention programs in other similar countries, notably Australia, New Zealand and the USA; and (v) we analyzed the available data to formulate recommendations for future policy and programs in research and intervention.

1.2. Outline

The report has six main sections. In this introduction, we begin with a brief summary of the methods of the review, specific terminology and background information. This is followed by a comprehensive review of the scientific literature. There are specific sections on suicide prevention among Inuit, First Nations and Metis and a discussion of gender issues. This is followed by a discussion of policy and programs in Australia, New Zealand, the U.S. and Greenland. Finally, we present a summary and synthesis of the key findings.

1.3. Methods

An earlier comprehensive report by our team reviewed literature through 2003 (Kirmayer et al., 2007). Key findings from that report and the report of the Advisory Group on Suicide Prevention (2003) are integrated into the present review.

Consistent with the objective to review the literature on youth suicide prevention, only articles that include prevention for people under 35 years of age were comprehensively evaluated. However, considering the scant literature for many types of prevention programs for youth, articles assessing programs for the general population including youth were considered for review. The search covered articles published between 2003 and 2008 addressing suicide prevention programs for Aboriginal people or communities. The following key words were used for the search: (suicide) AND (youth, program, prevention, postvention, screening, intervention, aboriginal, native, indigenous, Torres Strait, Maori, Métis, Inuit).

Information was located using the following databases:

- Database search using MEDLINE and PSYCHINFO
- Database search at the *Centre de Recherche et d'intervention sur le Suicide et l'euthanasie* (CRISE) at UQAM
- Thesis Database
- Info Suicide Database
- Canadian Association for Suicide Prevention database
- U.S. SAMHSA database
- NAMHR database (www.namhr.ca)
- SPINZ database
- AusIEnet database

These were supplemented by repeated open web searches with Google and Google Scholar, as well as backward and forward citation searches based on the bibliographies of key articles. Grey literature was accessed by consultation with local and international experts and community consultants (Appendix C).

1.4. Terminology

Suicide is defined as the act of intentionally ending one's own life (Silverman, et al., 2007a,b). Suicide behaviour that does not result in death includes: *suicide ideation* (thoughts of engaging in behaviour to end one's life); *suicide plan* (forming a specific method through which one intends to die); and *suicide attempt* (engaging in potentially injurious behaviour with at least some intent to die). Although these behaviours represent a continuum of severity, from ideation through attempts to fatal act, in many cases they occur independently. Most people who have suicide ideation never make attempts; some people who make attempts deny any history of suicide ideation; and many people who die by suicide never made a previous attempt. Finally, some people make multiple attempts with low lethality, suggesting their behaviour has somewhat different motivations. People who die by suicide may differ in important ways from those who make multiple non-lethal suicide attempts.

1.5. Levels and Targets of Prevention

Suicide prevention programs can be classified in terms of their level of action:

Primary suicide prevention aims to reduce suicide risk by improving the mental health of susceptible individuals (or populations) who have not displayed suicidal behaviour. Primary prevention strategies can be targeted at individuals or at whole communities. Examples include life skills education in schools, parenting programs and provision of accessible and effective mental health services for a population. The impact of such interventions may be very broad and occur over a long time span.

Secondary suicide prevention refers to early intervention or treatment of individuals who have displayed suicidal behaviour. This form of prevention can target people before they injure themselves (i.e. when they show signs of depression) or during a suicidal crisis. Examples include telephone hotlines and crisis counselling.

Tertiary suicide prevention attempts to decrease risk of further suicide attempt in persons who have already attempted suicide. This group is at high risk for a recurrence. Tertiary prevention can also be targeted at bereaved friends or family members (sometimes called 'postvention'), who may be at increased risk for mental health problems. Postvention is often accomplished through group or individual counselling and other forms of community support.

A second, related way of classifying interventions is in terms of their target:

Universal interventions focus on a whole population and attempt to decrease risk in all members of the population. Population interventions in suicide prevention in Aboriginal communities could include restricting the available means for self-harm (e.g. gun control) or developing cultural activities that promote social cohesion and a sense of belonging.

Selective interventions focus on specific sub-groups of a population (e.g. Aboriginal youth) who are known to be at increased risk for self-harm or suicide. Examples would include programs targeted to young people who are at high risk of suicide.

Indicated interventions are provided for individuals identified as needing specific services. At the individual level this includes counselling and treatment individuals with mental health problems, such as depression, or those who are actively suicidal. It can also include addressing the aftermath of suicide for family members or friends who have been bereaved (postvention).

2. BACKGROUND

Suicide is a set of actions or behaviors, not a distinct psychiatric disorder.¹ Like any complex behaviour, suicide has multiple causes and contributors. As a result, different methods of prevention may be needed for different patterns of suicide, and for particular groups.

To identify which approaches to suicide prevention programs may be most appropriate for Aboriginal communities, it is important to understand the prevalence and causes of suicide in this population. Not all communities or segments of the population are affected equally. The study of patterns of prevalence is essential to gauge the level of need for prevention, and the specific groups most directly affected. Research on risk and preventative factors for suicide can identify specific targets for prevention and point toward strategies. Understanding the underlying processes in the individual (and in the community) that contribute to suicide can help identify interventions that ‘make sense’ — that is, are likely to be effective even though they have not yet been systematically evaluated.

2.1. Patterns and Prevalence of Suicide

2.1.1 Global patterns of suicide

Suicide is one of the leading causes of death worldwide, with a global average rate of 16.7/100,000 persons per year (World Health Organization, 2007). Suicide is the second leading cause of death among young people aged 15-29 in Europe, following unintentional injuries (Blum & Nelson-Mmari, 2004). There is wide cross-national variation in suicide rates, and some indication of a global increase in rates of death by suicide, particularly for males, although rates in the U.S. and Canada have decreased in recent years (Nock et al., 2008b).

Suicide rates vary markedly by age, gender and ethnicity. In the North American general population, rates of suicide increase in mid-adolescence (ages 15-19 years), especially for males (Nock et al., 2008a). Adolescence and early adulthood are the times of greatest risk for the onset of suicidal ideation and behaviour (Nock et al., 2008b). For adolescents aged 12 to 17 years, lifetime prevalence of suicide ideation ranges from 19.8 to 24.0%, and for suicide attempts from 3.1 to 8.8%. The 12-month rates are similar, ranging from 15.0 to 29.0% for ideation, 12.6 to 19.0% for plans, and 7.3 to 10.6% for suicide attempts.²

¹ However, different forms of suicidal behaviour may share common causal factors and there are proposals to make suicide disorders a distinct group in psychiatric diagnostic systems (Leboyer, et al. 2005).

² The higher rates for adolescents and for 12-month rather than lifetime rates may reflect recall bias; in one study, fully 40% of adolescents who initially reported suicide ideation deny any lifetime history when

2.1.2 Patterns of suicide in Canada

The suicide rate in Canada in 2005 in the general population was 11.6 per 100, 000 population, with higher rates for males (17.9 vs 5.4 females) and those 35 to 54 years of age.³ Data from the 2002 Canadian Community Health Survey (CCHS 1.2) found a 12-month rate of attempted suicide in the general population of 0.6% (Blackmore et al., 2008). Significantly higher rates have been reported in specific populations or communities, including Inuit and First Nations (Kirmayer et al., 2007). The 2002/2003 Regional Health Survey of First Nations adults, found that 15.8% had made a suicide attempt in their lifetime and 1% had made an attempt in the past year (First Nations Information Governance Committee, 2005). Females were more likely than males to have made an attempt (18.5% vs. 13.1%). In the 2004, Nunavik Health Survey, 20% of respondents had made a suicide attempt in their lifetime, and 7% made a suicide attempt in the last 12 months (Kirmayer, Paul & Rochette, 2007). All these figures are significantly higher than that found in the general Canadian population.

The age-standardized suicide rates of Aboriginal youth (14 to 24) are 3 to 6 times that of the general population (Kirmayer et al., 2007). In 2000, suicide accounted for more than one in five of all deaths among Aboriginal youth (aged 10-19 years) and 16 percent of all deaths among Aboriginal people aged 20-44 years (Health Canada, 2002).

There is much variation in suicide rates when comparing different aboriginal communities in Canada. Some communities have reported no recent suicides, whereas others have very high rates. Suicide clusters may drive the rates in particular Aboriginal communities to extreme levels. For example, in 2005, there were 24 completed suicides in Nishnawbe Aski Nation territory, giving it one of the highest rates in Canada (Cheechoo, Catherine, Serene Spence, et al., 2006). There is a high proportion of suicide by hanging in youth, which is extremely difficult to restrict outside institutional settings (Bennewith et al., 2005).

2.1.3 Patterns of suicide among Indigenous peoples outside Canada

Elevated rates of suicide behaviour are found among many Indigenous peoples who have faced colonization or other forms of cultural oppression and marginalization. For example, a survey of Sami adolescents in Norway found a 6-month prevalence of suicide ideation of 15.1% and a lifetime prevalence of suicide attempts of 9.5%—both higher rates than that of the Norwegian general population (Silviken & Kvernmo, 2007).

American Indian youth have the highest suicide rates of all ethnocultural groups in the United States (Anderson & Smith, 2003). The increased rate in young people and the

interviewed 4 years later (Goldney et al., 1991). Such forgetting about past suicide attempts may be associated with better mental health (Goldney, et al., 2009).

³ Statistics Canada (2009). Retrieved from: <http://www40.statcan.gc.ca/101/cst01/perhlth66a-eng.htm>

male preponderance is marked among Aboriginal peoples. In the U.S. the rate of suicide among Native Americans/Alaska Natives goes from 9.1/100,000 (ages 10-14) to 51.9/100,000 (ages 20-24 years). The rate for Native peoples then decreases during middle adulthood and rises again after 75 years of age.

2.2. Causes of Suicide: Risk and Protective Factors

Emile Durkheim was one of the founding fathers of the discipline of sociology. He wrote a classic study of suicide in the nineteenth century, which indicated that suicide rates change according to local historical, social, political and environmental factors. Such findings have been replicated many times since, but research has focused primarily on biological and psychological variables in suicide. Suicide can thus be understood as an individual behaviour that is heavily determined by contextual backdrop and underlying social dynamics. To truly understand the causes of suicide among individuals, one has to also understand the contexts in which they live their lives. In most cases, no single factor accounts for an individual's suicidal behaviour. Instead, it is the interaction of many different factors at different stages in a person's life and social circumstances that contribute to risk or resiliency to suicide.

The causes of suicide can be broadly divided into *distal* or *predisposing factors* (like a history of abuse as a child), immediate causes or *triggers* (like the stress of a relationship breakup or getting into trouble with the law) and *enabling factors* (like easy access to guns). Some factors may work at multiple points in time; for example, alcohol abuse may be associated with long-term coping difficulties. This may also make the person very emotionally labile and impulsive while intoxicated. Anything that contributes to the risk of suicide is called a risk factor, while processes that reduce the risk of suicide are termed protective factors. Protective factors may act by reducing risk factors or have their own pathways in conferring protection. Risk and protective factors can exist at the individual-level or at the population level. An example of an individual-level risk factor is divorce. An example of a population level protective factor is cultural continuity within a reserve. The factors that contribute to suicide, either increasing risk or conferring protection, provide a focus for interventions.

2.2.1 General Risk Factors

Although there are age and gender differences in risk factors for death by suicide, suicidal ideation, plans and attempts, many risk factors are broadly consistent across different countries or regions (Nock et al., 2008b).

Demographic factors commonly found to be associated with death by suicide include being male, an adolescent or young adult, and Aboriginal (Cavanagh et al., 2003). Factors associated with suicide ideation and attempts include being female, younger age, separated or divorced, lower level of education, relative poverty and unemployment, chronic illness and poor social support (Blackmore et al., 2008).

The strongest predictive factors for death by suicide and for a suicide attempt are a previous suicide attempt and a psychiatric disorder, particularly mood disorders (major depression or bipolar disorder), alcohol or substance use disorders, psychotic disorders, and personality disorders (Cavanagh et al., 2003). The significant role of depression in suicidal ideation points to the importance of early intervention in depression management (Rohde, Seeley, Kaufman, Clarke, & Stice, 2006). However, most people who die by suicide never made a prior suicide attempt and never received any mental health care. Overall, about 30% of individuals with suicide ideation go on to make a suicide attempt (Nock et al., 2008a,b). Alcohol or drug intoxication may disinhibit the behaviour of individuals, contributing to the risk of suicide. Binge drinking may be more strongly associated than non-binge drinking with suicidal ideation and behaviour (Miller et al., 2007; Schaffer, Jeglic, & Stanley, 2008). Clearly, substance abuse prevention interventions must accompany any intervention aimed at preventing suicidal behaviors (Hawkins et al., 2004).

Although several follow-back studies indicate that up to 95% of people who die by suicide had a psychiatric disorder (including mood disorders, substance abuse and personality disorders), in many populations there may be a substantial proportion of people who die by suicide or make suicide attempts who had no psychiatric disorder. Suicide may be precipitated by life circumstances and predicaments, intensified by loss and lack of social supports, and facilitated by available means and prevalent social models. These social-contextual factors have been emphasized in explanations of the high rates of suicide among young women in China or in rural India (Ji, Kleinman & Becker, 2001).

There is some heritable risk for suicide that may be due largely to the inherited risk for a psychiatric disorder, and for impulsive/aggressive behaviour (Joiner, Brown & Wingate, 2005). However, family history of suicide may increase the risk of suicide through other means as well, including disrupted parenting, family discord, and modeling of suicidal behaviour (Brent & Melhem, 2008). Parental separation and divorce also increase youth suicide risk.

Negative life events are frequent triggers or precipitants of suicide behaviour. Although such negative, trauma or stressful events are external to the person and usually out of their control, certain events occur more frequently among individuals with psychiatric disorders. For example, individuals with personality disorders may be more likely to experience events like the breakup of a relationship or trouble with the law and less able to cope with such crises (Yen et al., 2005).

Various general risk factors for psychosocial or psychiatric problems may increase the risk for suicide. These include low birth weight (Riordan et al., 2006), childhood abuse and neglect (Dube et al., 2001, 2005; Brodsky et al., 2008) and especially, violent physical and sexual abuse (Joiner et al., 2007). Some of the effect of emotional or sexual abuse may be mediated by increased self-criticism (Glassman et al., 2007). Other psychological risk factors include hopelessness, anhedonia, impulsiveness, negative

affectivity (the tendency to experience negative emotions), and high emotional reactivity (Brezo, Paris & Turecki, 2006; Yen et al., 2009).

2.2.2 Gender-Related Risk Factors

Gender is associated with important differences in suicide risk and behavior but these effects depend in part on social and cultural context. Females tend to report much higher levels of suicidal ideation and self-injurious behavior than males (Kirkcaldy, Eysenck, & Siefen, 2004), whereas deaths by suicide are significantly more prevalent among males. Other studies have found that suicidal women suffer more from anxiety disorders and panic disorders than do suicidal men. Suicidal men tend to show higher rates of addictive disorders (Albizu-Garciaa et al., 2001; Prior & Hayes 2001; Wunderlich et al., 2001). In addition to female gender, other factors associated with suicidal ideation and attempts include younger age, being separated or divorced, lower level of education, relative poverty and unemployment, chronic illness and poor social support (Blackmore et al., 2008).

There is a clear link between unemployment and suicide (Platt & Hawton, 2000). Because of the association between masculinity and specific types of work, employment may be a particularly important factor for young men. Increasing employment, however, may not immediately reduce the suicide rate for young people, because when unemployment levels drop, there is greater pressure placed on those who are still out of work (Crawford & Prince, 1999).

In reviewing changes in the mental health of young people in Australia from 1964 to 1997, Lynskey et al. (2002) found that there had been an apparent increase in the rates of psychosocial disorders, and that these increases were consistent across men and women. However, suicide rates for men rose while suicide rates for women remained relatively static, suggesting that it is the gendered experience of mental illness and the gendered response of sufferers that needs to be understood in order to prevent suicide. Gender differences also may be related to differences in cognitive style; for example, Nock and Kazdin (2002) found that girls in their sample of adolescents reported significantly more frequent negative automatic thoughts than boys.

2.2.3 Risk factors specific to adolescents and young adults

The risk factors described above all influence suicidal behavior across the life-span. However there are some risk factors that may be particularly influential in determining suicide risk among adolescents and young adults.

Impulsivity may be particularly important in adolescent suicide (McGirr et al., 2008a), but only certain facets may be closely related to suicide, specifically, the tendency to act without much thinking or deliberation (Yen et al., 2009). The importance of impulsivity is that many suicide acts are not pre-meditated or involve a rapid transition from ideation

to action. This narrows the window of opportunity for intervention and points to the importance of approaches that: (i) target impulsivity itself before the individual shows signs of suicidality; (ii) address other triggering or precipitating factors ; and (iii) make crisis services readily and immediately available.

Death by suicide in adolescent boys is more likely to be associated with antisocial or aggressive behavior, whereas death by suicide in girls is more likely to be associated with depression (Shaffer et al., 1996). For boys, those who at age 8 are frequent victims of bullying and those who bully are at increased risk for suicide in adolescence (although the effect is not found when controlling for conduct problems and depression symptoms); for girls, being a victim of bullying is associated with increased suicide risk even when controlling for conduct and depressive symptoms (Klomek et al., 2008, 2009).

Other research confirms that for older adolescents and young adults, suicide often is the result of long-term difficulties experienced in early adolescence or childhood (Houston et al., 2001; Harrington, 2001). Suicidal behavior is influenced not by family structure but by the quality of family relationships. Both a lack of support and the impact on the adolescent of stress experienced by other family members may contribute to suicide risk (Wannan & Fombonne, 1998; Coggan et al., 1997). Young men appear to be particularly vulnerable to a lack of emotional support (Kelly & Bunting, 1998). Parental criticism also is associated with adolescent self-injurious behaviour (Wedig & Nock, 2007).

Social-contextual and historical factors may also play a large role in Aboriginal youth suicide. Many Aboriginal communities have been affected by rapid cultural change, suppression of their traditions, and social, political and economic marginalization. Changes in the roles of males associated with the shift to sedentary community life, have disrupted traditional modes of education, meaningful activities, and solidarity among young males. This may help explain the age and gender differences in suicide.

In a study comparing Sami adolescents with other Norwegian adolescents, factors that indicated divergence from the traditional cultural norms and family configurations were associated with suicide attempts among Sami, including alcohol abuse, single-parent home and paternal overprotection (Silviken & Kvernmo, 2007). There is evidence that ‘acculturative stress’ over conflicts between the cultural values of one’s ethnocultural community and the larger society can be associated with increased suicidality among African Americans (Walker et al., 2008). Similar processes may be relevant for some Aboriginal youth in urban settings.

The Residential School system in Canada wrecked havoc with many Aboriginal communities and left a legacy of intergenerational trauma, loss and parenting difficulties that have undoubtedly contributed greatly to the predicament of contemporary Aboriginal youth (Chansonneuve, 2008). Understanding these transgenerational effects is important for devising appropriate suicide interventions (Stout, 2003). Many of the specific factors or causal pathways discussed above are affected by the experiences of parents, grandparents, and whole communities with this system (Kirmayer, et al. 2007).

2.2.4 Protective Factors

Protective factors decrease the risk of suicide. Most research simply considers the reduction of risk factors as protective. But protective factors may confer protection in their own right, in ways that are not recognized when one considers only risk and vulnerability. Protective factors that have been identified include religiosity and spirituality (Garoutte, et al., 2003). Other well established protective factors include social support, and family connectedness. Interventions designed to increase family stability and the quality of parenting could also have protective effects. Young people need emotional support, which may be encouraged by providing parents with appropriate information and guidance on how to approach their children if they are concerned about their behavior, how to provide social support, and how to identify the warning signs of self-harm. These suggest the need for improved family support, including interventions that involve fathers (Smalley, 2005).

Community regeneration and community development may have a positive impact on suicide rates, although evidence to date is limited (Smalley, Scourfield, & Greenland, 2005). Chandler and Lalonde (2002, 2007) have shown that cultural continuity or local control within First Nation reserves contributes to lower rates of suicide.

Psychiatric treatment, particularly antidepressant medication for depression, has been considered a protective factor in that it decreases psychiatric symptoms that may be associated with suicide. There has been recent concern that SSRI antidepressants may be associated with increased suicide risk because they may make some depressed patients more irritable or impulsive. However, the reduction in SSRI antidepressant prescriptions following warnings about their potential overuse has been associated with an increase in deaths by suicide (Gibbons, et al., 2007). SSRI antidepressants should be used with adolescents only with close clinical monitoring (Williams, O'Connor, Eder & Whitlock, 2009).

Popular media may have a significant effect on suicide risk, both identifying positive role models and providing vehicles for expression. For youth, the Internet may be increasingly important as a way to find others to confide in or a virtual community that will diminish loneliness, isolation and suicide ideation (Biddle et al., 2008). On the other hand, youth can also find information about suicide on the Internet and may even find on-line communities where suicidal planning can be discussed.

2.2.5 Summary of risk factors

Table 1 summarizes some of the key risk factors that contribute to suicide. The different factors are not truly separate but influence each other and are often consequences of the same situation. There are many feedback loops or vicious circles that cause one factor to increase or intensify another factor. This happens within the individual's own development and psychological processes, and in the dynamics of the community.

Table 1. Risk and Protective Factors for Aboriginal Youth Suicide

Risk factors

- Male gender
- Previous suicide attempt
- Victim of violence or physical abuse
- Victim of bullying (for girls)
- Perpetrator of violence or physical abuse
- Perpetrator of bullying (for boys)
- Physical fighting
- Alcohol use
- Drug use
- Inhalant or solvent use
- School problems
- Mood disorder (i.e. major depression, bipolar disorder)
- Poor family environment
- Low parental monitoring
- Poor problem solving and social skills
- Social isolation
- Relative poverty
- High prevalence of suicide in the community (clusters)

Protective Factors

- Perceived parent and family connectedness
- Emotional well-being (esp. for females)
- Success at school
- Community involvement and connectedness
- Religious involvement

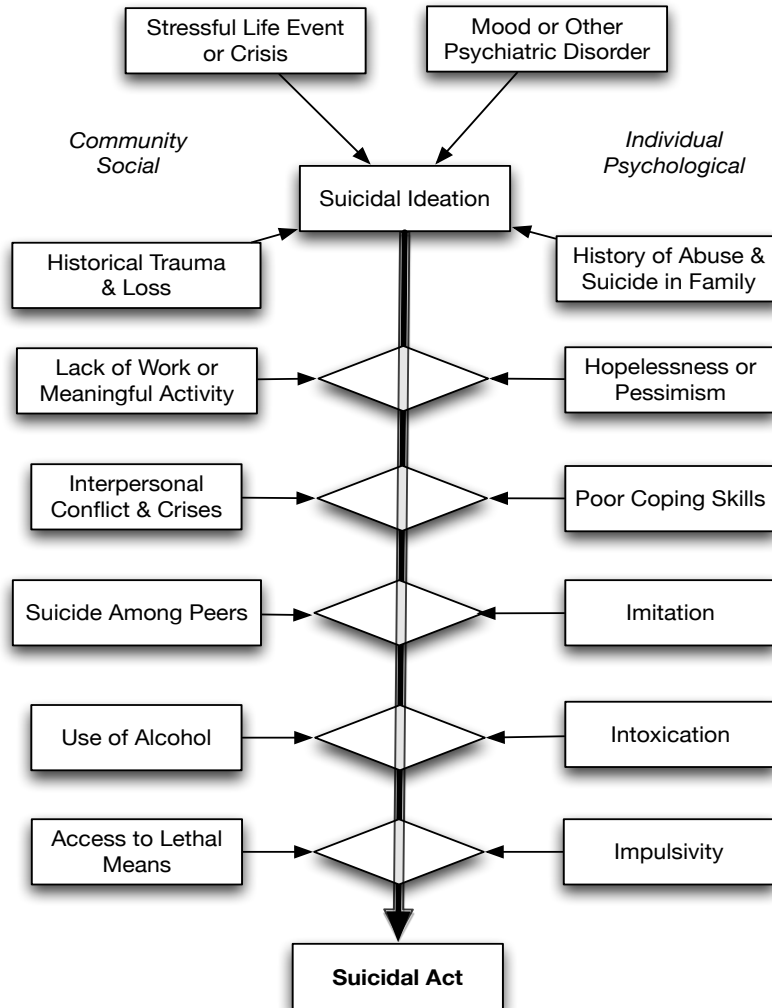
Sources: Barney, 2001; Borowsky et al., 2001; Dube et al., 2005; Evans, Hawton & Rodham, 2004; Gould et al., 2006; King et al., 2001; Kirmayer et al., 1998; Klomek et al., 2009; Malone et al., 2000).

Social and personal factors interact with each other to amplify (or, in cases of a beneficial response, to reduce) the risk of suicide. This interaction of personal and social factors is represented by the diamonds in Figure 1. For example, lack of meaningful activities in the community for youth will increase hopelessness and pessimism. Hopelessness and lack of a vision of the future, in turn, will make individuals less able to engage in potentially meaningful activities (e.g. persisting in school with the thought of eventually finding interesting work). Poor interpersonal skills may increase the likelihood that youth will experience negative life events like conflict with peers or adults, or the breakup of a relationship and also make it more difficult for them to cope with the subsequent distress.

Peers are very important for most young people as the center of their social life and a source of models for behaviour. In Aboriginal communities, there are many young people

with similar backgrounds and experiences, increasing their level of mutual identification. This increases the likelihood of imitation of behaviours, including suicide. This process of imitation helps to explain the occurrence of suicide clusters in Aboriginal communities. Niezen (2008) has described this process of imitation in which many young people in a community become caught up in the idea of suicide, so that talking about suicide or engaging in suicidal behaviour may actually become a way of belonging. Suicide prevention interventions that engage a whole peer group, therefore, may have added value for adolescents.

Figure 1. Factors that Contribute to Suicide Risk



Adapted in part from: Mann et al. (2005)

2.3 Approaches to Suicide Prevention

In September 2003, the American Foundation for Suicide Prevention began a major project designed to review the efficacy of suicide prevention interventions. A preliminary meeting of 13 representatives from several countries (held in Stockholm) provided the basis for the first International Workshop on National Suicide Prevention Strategies. In

August 2004, a workshop in Salzburg, Austria, brought together 22 representatives of countries that had developed, or were currently developing, a national suicide prevention plan, including: Australia, New Zealand, the United States, Finland, Norway, Sweden, China, Japan, Denmark, Hungary, Belgium, Slovenia, Estonia, Germany, Hong Kong, Israel, and Switzerland. The main goal was to examine the various national plans and to clarify the evidence for the effectiveness of specific components (Mann et al., 2005). The workshop identified five major areas of prevention:

- programs for the general public and professionals on suicide education and awareness;
- methods for screening to identify and intervene with people at high-risk;
- treatment of psychiatric disorders;
- restricting access to lethal means;
- regulating suicide reporting in the media.

Of these five approaches, physician education in the treatment of depression, gatekeeper training and means restriction had the strongest evidence for preventive effects.

Another meeting was held in Dublin, Ireland, August 2007, in conjunction with the International Association of Suicide Prevention. The goal of this meeting was to systematically examine and compare national youth suicide prevention strategies. This meeting led to the following recommended strategies for suicide prevention:

- Developing and evaluating interventions that improve the material and physical circumstances of people's lives as primary and secondary prevention;
- Restricting access to paracetamol (an over-the-counter analgesic medication in Europe which is often used to overdose);
- Education and general coping skills training, especially for high-risk groups, which will have beneficial effects on depression as well as suicidality;
- Suicide programs targeting at-risk youth, particularly problem-solving therapy and provision of emergency contact cards;
- Promoting responsible reporting by the media.

Evidence-based care aims to provide sound scientific research on effectiveness to guide the selection of interventions. Ideally, this requires evidence from multiple well-designed, randomized controlled trials or comparable studies conducted by several independent research teams. Although such evidenced-based care has made inroads in many areas of health care, relatively little work has been done in the area of suicide prevention.

The Evidence-Based Prevention Project (EBPP) created a registry of activities in suicide prevention in order to better assess their effectiveness (Rodgers, Sudak, Silverman, & Litts, 2007). The aims of the EBPP are to: 1) support rigorous evaluation of programs; 2) help coordinators apply for review of their program; and 3) identify best practices. The EBPP did an exhaustive literature search and invited people to submit programs. A total of 55 programs were indentified, one-third of which were school-based programs. Only 24 studies were included in the final review as they met minimum methodological

standards. The programs were reviewed by at least 3 experts in the field. In the end, only four programs were categorized as effective and 8 programs were identified as promising based on the quality of the program and initial evaluation studies (Table 2). Detailed information on all of the programs is available from the Suicide Prevention Center Resource Center website (www.sprc.org).

Table 2. Evidence-Based Suicide Prevention Programs

Community-Based Programs

U.S. Air Force Suicide Prevention Program (Knox et al., 2003)
Reduced Analgesic Packaging (Hawton, 2002)

Emergency Room Programs

ER Means Restriction Education for Parents (Kruesi et al., 1999)*
ER Intervention for Adolescent Females (Rotheram-Borus et al., 2000)

Primary Care

PROSPECT (Prevention of Suicide in Primary Care Elderly) (Bruce et al., 2004)*

School-Based Programs

CARE*/CAST* (Thompson, Eggert, Randell, & Pike, 2001)
Columbia University TeenScreen (Shaffer et al., 2004)
Lifelines (Kalafat & Elias, 1994)
Reconnecting Youth (Eggert & Nicholas, 2004)
SOS: Signs of Suicide (Aseltine & DeMartino, 2004)
American Indian/Zuni Life Skills Development (LaFromboise, 1995)

Service Delivery

Brief Psychological Intervention after Deliberate Self-Poisoning (Guthrie et al., 2001)

Specific Treatment Modalities

Cognitive Behavioural Therapy for Adolescent Depression
Dialectical Behaviour Therapy
Multisystemic Therapy with Psychiatric Support (MST-Psychiatric)

Sources: Rodgers, Sudak, Silverman, & Litts, 2007); Updated at: <http://www.sprc.org/>

* Program for which there is a higher level of evidence.

2.4. Previous Reports on Aboriginal Suicide Prevention

Much can be learned from research on the general population. However, because there are important gender, age, social and cultural variations, there is a need to develop and assess approaches specific to Aboriginal populations.

There have been many previous efforts to identify the key strategies and components of effective suicide prevention programs for Aboriginal youth. Many of the recommendations from these efforts remain sensible approaches, although most still have not been systematically evaluated or widely implemented.

In July, 2001 an Advisory Group on Suicide Prevention was jointly appointed by National Chief Matthew Coon Come of the Assembly of First Nations and former Minister of Health Allan Rock. The purpose of this Advisory Group was to review the existing research and formulate a series of practical, doable recommendations to help stem the tide of suicides occurring in First Nations communities across Canada. The recommendations were grouped into four main themes: (1) increasing knowledge about what works in suicide prevention; (2) developing more effective and integrated health care services at national, regional and local levels; (3) supporting community-driven approaches; and (4) creating strategies for building youth identity, resilience and culture. For each theme, specific recommendations were made for short-term, intermediate and long-term actions.

Of the 32 recommendations made, several of those related to the first theme, *increasing knowledge*, have been carried out. The CIHR IAPH developed a specific RFA for suicide research and five New Emerging Teams in Aboriginal Suicide Research were funded across the country. These groups met together at a meeting of the National Network for Aboriginal Mental Health Research in Montreal in 2008. Further work in coordinating research and creating a national clearinghouse for information is needed. This should be coordinated with the Mental Health Commission of Canada, NAHO, Health Canada and community partners.

Less has happened in terms of the second theme of developing more effective and integrated mental health services, although efforts are underway to review NNADAP, and to develop community-based models of mental health promotion and services. In general, Aboriginal people in rural and remote communities have poor access to mental health services. Services may be somewhat more available to those living in cities but there are few culturally responsive services in any setting. The complexities of federal and provincial funding and governance make the goal of equitable access to appropriate services particularly challenging. Aboriginal people continue to experience jurisdictional conflicts and ambiguities that affect comprehensiveness and continuity of care (Macdonald, 2008). Given the logistical problems of providing services to many small and remote communities, there is a clear need for national or regional consultation centers able to assist in service training, development and support for Aboriginal communities.

The third set of recommendations focusing on supporting community-driven approaches is being addressed through ongoing reviews by FNIHB and NAHO, including a project on communities in crisis. Hopefully, this will lead to specific projects and programs.

Finally, the recommendations regarding a focus on youth have been advanced by the NAYSPS which has convened youth forums nationally and regionally to address issues of suicide prevention and mental health promotion. NAYSPS has also provided support for a variety of local and regional activities and initiatives.

In terms of specific suicide prevention programs, a report presented by the Canadian Centre for Suicide Prevention identified the following interventions to be the most promising for Aboriginal youth (White & Jodoin, 2003):

For the general population, regions or communities: mental health promotion aimed at reducing risk factors and promoting protective factors. These are mainly aimed at the population level but also include some individual-level interventions (e.g. cultural enhancement, community development, peer helping, youth leadership, school climate improvement, self-esteem building, life skills training and family support);

For groups at early risk: early intervention mainly targeted at specific groups through institutions like schools and youth groups (e.g. traditional healing practices, interagency communication and coordination, community gatekeeper training, public communication and reporting guidelines, means restriction, school gatekeeper training, school policy, suicide awareness education, support groups for youth);

For individuals at identifiable risk: treatment interventions to treat depression or other underlying problems and reduce suicidality (individual assessment and treatment, family therapy, clinical training of practitioners, case management);

For individuals at high risk: crisis intervention to interrupt precipitants and trigger factors, and resolve the crisis situation (24-hour crisis response services, hospital inpatient programs, drug interventions).

The National Aboriginal Youth Suicide Prevention Strategy (NAYSPS) was developed with the goal of reducing risk factors and promoting protective (preventive) factors against suicide. The strategy focuses on health and wellbeing, community readiness, and the involvement of youth. The guiding principles of the National Aboriginal Youth Prevention Strategy have been: 1) evidence-based; 2) support for community-based approaches; 3) culturally appropriate; 4) address all levels of prevention; 5) involve youth; 6) consider varying levels of community-readiness; 7) promote preventing suicide as the responsibility of all; and 8) promote life and well-being.

A 2006 conference in Albuquerque, organized by the U.S. NIMH, Indian Health Service, Health Canada, and the CIHR Institute for Aboriginal Peoples Health, brought together representatives from research, service organizations, youth, community programs, and governments (across a range of countries, tribes, and villages). The aim of the conference

was to share current information on Indigenous suicide, find ways to foster collaboration, and form workgroups to bring substantive research and prevention efforts forward. Participants expressed the need for community-specific approaches that respect the cultural diversity of Indigenous communities. They noted the reluctance of many in communities to discuss the issue of suicide due to shame and stigma. Some of this stigma can be counteracted by emphasizing life-affirming messages and strategies. There was strong agreement on the importance of social, cultural and historical contexts in Aboriginal health, specifically that:

- cultural knowledge, beliefs, and practices must be the basis of improving the health of communities;
- suicide must be understood in the social and historical context of colonization, marginalization and globalization;
- traditional knowledge, along with the roles of Elders and spiritual leaders must be respected as a basis of community health; and
- self-governance is central to the experience of health and is an important factor in determining Indigenous community health.

A comprehensive review of suicide prevention was undertaken in New Zealand as part of the National Strategy for Suicide Prevention (Beautrais et al., 2007). The review used four categories to classify initiatives: 1) *strong evidence*, required RCTs with consistent evidence; 2) *promising*, some evidence exists but it is not strong; 3) *may be beneficial*, where there was no clear evidence of effectiveness; and 4) *harmful*, there is evidence that the intervention can have some negative effects. As with other reviews, they noted that there is relatively little evidence for the efficacy of many existing suicide prevention initiatives. In fact, strong claims are sometimes made about the effectiveness of programs that have not been adequately evaluated. Three approaches met the criteria for *strong evidence*:

- 1) training medical practitioners in screening and treatment of suicidality;
- 2) restriction of means; and
- 3) education focusing on enhancing the skills of community, organizational, and institutional gatekeepers.

Promising strategies for which there was some evidence of effectiveness included:

- 1) support after suicide attempts;
- 2) medication treatment for specific disorders such as depression which are linked to suicidal behavior (e.g. antidepressant medication);
- 3) psychotherapy and psychosocial interventions, including cognitive behavioural therapy (CBT), interpersonal psychotherapy (IPT), dialectical behaviour therapy (DBT), and some forms of problem-solving therapy;
- 4) public awareness education and mental health literacy;
- 5) screening for depression and suicide risk;
- 6) crisis centres;
- 7) school-based skill enhancement programs;

- 8) encouraging responsible media coverage; and
- 9) supporting family, extended family and friends of the bereaved after a death by suicide.

Strategies for which there was no clear evidence, but which may be beneficial, included:

- 1) increasing control of alcohol use;
- 2) community-based mental health services and support services as opposed to more centralized care; and
- 3) support for families facing stress or crises.

The review also found evidence that some approaches may be harmful, specifically:

- 1) school-based programs that focus exclusively on raising awareness about suicide (although more recent evidence suggests that more comprehensive programs may be effective);
- 2) public health messages about suicide and media coverage, which inadvertently may normalize suicide;
- 3) no-harm and no-suicide contracts made with clinicians psychotherapists or others (there is no evidence that their use reduces suicide attempts and they may create a false sense of security in the clinician); and
- 4) certain forms of psychotherapy (e.g. recovered or repressed memory therapies).

These recommendations are consistent with the U.S. and Canadian reports summarized above.

3. SUICIDE PREVENTION PROGRAMS & INTERVENTIONS

Previous reviews show broad consensus on the methods of suicide prevention that have some demonstrated effectiveness in the general population as well as the wider range of approaches that are promising. Recent work has supported these basic recommendations but has provided some additional evidence.

In this section, we review suicide prevention programs and interventions with an emphasis on work published or advanced since 2003. Interventions are organized in terms of broad categories, based on the level of intervention, setting and target population:

- A. Education and awareness programs
 - 1. School-based
 - 2. Gatekeeper training
 - 3. Population or community-based
- B. Screening for youth at high risk
- C. Treatment with counseling, psychotherapy or medication
- D. Follow-up care after suicide attempts
- E. Postvention
- F. Restriction of access to lethal means
- G. Media reporting guidelines
- H. Comprehensive or multilevel programs

Many programs include components from several levels but are described under a specific heading based on the most distinctive aspect of the program or the aspect that has been evaluated.

Very few Aboriginal-specific programs have been well-described in either the published or grey literature and still fewer have had any sort of evaluation. Accordingly, most of the programs and interventions summarized here come from non-Aboriginal settings but have some potential application for Aboriginal populations.

3.1. Education and Awareness Programs

Education and awareness programs aim to increase knowledge about suicide, enhance appropriate coping and help-seeking, and change attitudes in order to facilitate help-seeking. Education interventions can be addressed to different levels. In the following sections, we discuss recent and promising initiatives involving school-based programs, gatekeeper training programs in primary care and other settings, and public health or community-based programs.

3.1.1. School-based programs

School-based programs are directed to youth in the school setting. They typically seek to convey knowledge about suicide and ways of recognizing and responding to individuals at risk (and, of course, recognizing one's own need for help). This includes understanding suicide as a serious problem that deserves attention, identifying the warning signs of suicide, teaching alternative coping methods, and training youth as peer helpers or gatekeepers who can refer their friends to available sources of counseling and help.

In a comprehensive review of earlier work, Guo and Harstall (2002) found 10 studies of school-based programs that met basic criteria for the quality of the evaluation. Programs varied widely in format, content and duration. Two well-designed studies found significant decreases in depression, hopelessness, stress, anxiety and anger in the adolescents exposed to the prevention program.

Of the studies reviewed for this report, 6 specifically described and/or evaluated school-based curriculum prevention programs (Table 3).

3.1.1.1 *Agir Ensemble pour Prévenir le Suicide chez les jeunes* (“Working Together to Prevent Youth Suicide”)

Agir Ensemble pour Prévenir le Suicide chez les jeunes (“Working Together to Prevent Youth Suicide”) is a school-based program based on the notion that the school environment, including peers, parents and staff, plays an important role in aggravating or protecting against suicidal ideation (Raymond et al., 2003). The objectives of the program were to provide school counsellors and staff with tools for suicide prevention, and to sensitize parents and students to the issue of suicide, increasing their knowledge about suicide prevention.

The program was implemented in four areas of Québec: Bas Saint-Laurent, Lanaudière, Laval and Montérégie. A total of 131 students, 29 parents and 45 school personnel took part in the program. A pre/post intervention design was used to evaluate the effectiveness of the program. Students, parents and staff completed questionnaires assessing knowledge of indicators of at-risk behaviours and of available resources, and intention to refer a suicidal person to appropriate resources despite a person's request to keep the suicidal ideation secret.

Results of this study suggest that the program was effective in increasing knowledge and intent to refer among both male and female students; however, parents and staff members showed no gain in either of the evaluated aspects. The authors suggest that parents who chose to participate in the study already may have had high levels of baseline knowledge, so that it was difficult to show additional improvement. The use of a movie was an important element in the educational program and was very well received by students, parents and staff.

3.1.1.2 Psycho-education in Belgium

A school-based psycho-educational program was evaluated in 10 high schools in an urban area of Belgium (Portzky & van Heeringen, 2006). The 2-hour program included a didactic presentation by a psychologist followed by a question period. The curriculum included a psycho-educational component and a peer-helping component. The psycho-educational segment of the program presented information on the prevalence of suicide, risk and protective factors as well as the origins, development and progression of suicidality. Suicide and depression were portrayed as consequences of complex interactions of risk factors at multiple levels including social, psychological, biological and psychiatric. The second part of the program focused on the identification of warning signs and adaptive coping skills. Students were provided with a list of available resources.

A total of 172 students between the ages of 14-18 took part in the program. A pre- and post-intervention design was used for the evaluation of the program. Four classrooms were randomly assigned to receive the prevention program (two classrooms) or to a control group (two classrooms) where students received the usual health education class. Knowledge, attitudes towards suicide, coping-skills and levels of hopelessness were assessed. Results of this study suggest that students participating in the program significantly increased their knowledge about suicide; the effect was especially clear for girls. A similar program-by-gender interaction occurred with regard to attitude towards suicide. Boys showed increased confidence in their ability to cope with a suicidal friend. Girls, on the other hand, showed an increase in their general appraisal of suicide and suicidal peers. There was no effect of the intervention on levels of hopelessness or coping skills.

3.1.1.3 Lifelines, New Jersey

Lifelines, a suicide prevention program for youth, was implemented in a New Jersey school district in grade 10 health classes in 2005 (Haines, 2007). The objectives of *Lifelines* are to develop school-based expertise capable of responding to the problem of adolescent suicide, provide students with the knowledge and tools necessary for proper peer prevention, and encourage referral of at-risk individuals to adults. This program is divided into 45-minute lessons, which can be part of an existing health program within

the school curriculum. Students are taught risk factors for suicide, warning signs, and what actions can be taken when faced with at-risk individuals. School staff are provided with a *Warning Signs* handout that guides them in how to identify at-risk students. Policies and procedures for appropriate staff actions when dealing with at-risk students are developed in the school. Schools are encouraged to work in collaboration with community referral sources. School staff and trainers meet with parents to present and discuss the program before its introduction into the classrooms. Parents are also provided with school resources and procedures.

For the evaluation study, a total of 971 students received the program. A pre-post intervention design was used to assess changes in attitudes and knowledge about suicide. Questionnaires developed for the Lifelines project (28 questions) were used to evaluate students' knowledge and attitudes. Students were then given vignettes illustrating realistic situations and were asked how they would respond in such a situation and what their level of concern would be for a given scenario. Questionnaires were administered before the program and 2-3 weeks after its completion. A group of Grade 9 students who did not take part in the program received the same questionnaires at similar times and served as a control group for the study.

Students receiving the intervention showed significant gains in knowledge, attitudes about the intervention, as well as toward help-seeking. Compared to controls, the students who took part in the program felt more confident that the school was capable of adequately responding to individuals at risk or in crisis. There was a significant difference between the two schools receiving the intervention in their knowledge of how to respond to a difficult situation as assessed by the vignettes. One school indicated that they would notify a trusted adult significantly more frequently than the other school and to controls. This suggests that there may be significant variations in the impact of programs across different settings.

3.1.1.4 The South Elgin High School suicide (SEHS) prevention program

The South Elgin High School suicide (SEHS) prevention program, took place in two large high schools in Chicago (Ciffone, 2007). The SEHS program was based on the concept that suicide is related to mental illness and is not a normal reaction to stress. The goal of the project was to change unwanted attitudes towards suicide and to increase positive attitudes toward help seeking. The intervention included in-class presentations by the school social-worker during which students watched a 14-minute video (*Choosing Life: Gail's Story*) and were encouraged to take part in discussions on mental health, mental illness and suicide. Over the following days, classroom teachers were encouraged to present a second video (*Day for Night: Recognizing Teenage Depression*) and provide students with written information and a quiz related to the presentations. Further discussions were initiated by teachers. Apart from the school-based curriculum, the SEHS program provided school staff with written intervention policies, screening mechanisms were put into place in the school, high-risk students were offered interventions, and postvention strategies were organized following the death of a student.

This school-based curriculum was evaluated using a pre-post intervention design comparing responses to surveys provided by 421 students who had either received the intervention or were part of a control group. Results suggested a greater change towards desirable attitudes in students who received the intervention. Changes in attitudes were not dependent on gender or school. Students receiving the intervention also showed an increase in knowledge and help-seeking behaviours for themselves and for peers as compared to students in the control group.

The SEHS prevention program has existed for 19 years in South Elgin High School. The authors estimate that more than 11,000 students have participated in the program, of whom only 0.5% made suicide attempts requiring medical treatment, compared to the rate of 2.9% rate reported in a nationwide survey of high school students. However, as the authors note, this comparison is not a direct test of impact, since there are differences in methodology between the national survey and the SEHS study, including the definitions used to categorize suicide attempts and the age-range of adolescents included.

3.1.1.5 SOS Suicide Prevention Program, Hartford CT and Columbus OH

Aseltine and colleagues (2007) evaluated the effects of the SOS Suicide prevention program in 9 high schools (4491 students) in Hartford, CT and Columbus, OH. The objective of the program is to increase knowledge about depression and suicide, positively change attitudes towards suicide, increase help-seeking behaviours and reduce suicide ideation and attempts among students. The program is a 2-day session included within a half-year health class and combines a classroom curriculum module with screening of high-risk students. Students are taught to identify signs of depression and suicidal risk in themselves and their peers and are shown various actions that may be taken once signs are recognized. Teachers are provided with a discussion guide and a video for their students. After these activities students are asked to complete the Columbia Depression Scale (CDS) for screening purposes, which they score themselves (Shaffer et al., 2004). They are then provided with a list of available resources.

When compared to a group of students who had been randomly assigned to a social studies class for the first half of the year, students in the SOS program showed significantly fewer self-reported suicide attempts, significantly greater knowledge of depression and suicide and more adaptive attitudes towards suicide than their peers. However, there were no differences in help-seeking behaviours between groups. In addition to its apparent efficacy in reducing suicide attempts, this program is relatively cost and resource efficient.

3.1.1.6 Raising Awareness of Personal Power (RAPP) Colorado

Raising Awareness of Personal Power (RAPP) is a suicide education program that includes lectures and activities (games, role plays, story analysis) presented by peer

counsellors and trained adult volunteers (Cigularov et al., 2008a). RAPP was designed to educate students about depression and bipolar disorder, suicide warning signs, local resources and a 3-step process (Listen, Ask, Take-Action) of how to respond when dealing with an at-risk peer. Emphasis is placed on the importance of getting help from an adult.

RAPP was integrated into the health curriculum of 7 public high schools in northern Colorado. A total of 779 high school students between the ages of 13-19 received the program. Because a randomized control trial was seen as presenting ethical and practical constraints researchers used three methodological and statistical approaches to ensure scientific rigor in the evaluation of the program: rolling group design, the internal referencing strategy, and the minimum competency approach. Students' knowledge, attitudes and self-efficacy beliefs were evaluated before and after receiving the suicide prevention program. Significant differences were observed in all three indicators evaluated before and after the program.

Students taking part in the program also were asked about their perceived barriers for seeking help for suicidal ideation for themselves or for a troubled friend (Cigularov et al., 2008b). The most important barriers for seeking help for oneself were: inability to discuss problems with adults, overconfidence, fear of hospitalization, and lack of closeness to school adults. Barriers for seeking help for a troubled friends included: friendship concerns, unapproachability of school adults, fear of being hospitalized, and underestimating the friend's problems.

3.1.1.7 Analysis

School-based programs have been criticized in the past as possibly increasing suicide risk by increasing thoughts about suicide. However, the more recent work summarized here suggests this is not a significant problem and that these programs can be effective. One important limitation is that they do not usually include youth who are not in school. They also require that local resources be available to follow-up on individuals at risk.

Five of the six studies described in this review planned a control group for comparisons. In two studies, students were randomly assigned to this condition (Aseltine & DeMartino, 2004; Aseltine, James, Schilling, & Glanovsky, 2007; Portzky & van Heeringen, 2006). In one study, students of a younger cohort served as a control (Haines, 2007). An obvious disadvantage of this method is the possible difference in behaviours, maturity and knowledge between the intervention and control groups due to age differences. However, a possible advantage as compared to randomly assigning groups or using students from the same cohort is a reduced 'spill-over' effect in which the intervention directed at one group actually influences the control group. In this case, interaction among the students might reduce the difference between intervention and control groups and limit the ability to demonstrate any impact of the intervention.

All 6 programs included both a psycho-educational component and a peer-helping component. All programs discussed risk factors for suicide, warning signs and actions to take when one-self or a peer seems in distress. In all programs students were given information on available resources to follow-up if they were concerned about themselves or a peer.

All the programs that evaluated their protocol used a pre/post design, comparing measures of knowledge, attitudes or behaviours before and after the intervention. All 6 evaluated programs examined attitudes and knowledge as outcomes. Only two studies specifically assessed suicide ideation or attempts as an outcome measure.

All programs showed benefits in terms of increasing knowledge about suicide and its risk factors and, all but one program, produced a significant change in attitudes towards suicide. In the program where no effect was observed on attitudes, coping skills and levels of hopelessness (Portzky & van Heeringen, 2006), the intervention consisted of only a 2-hour session compared to the multiple day sessions provided in all other studies. This brief intervention may partly explain the limited benefits of this specific program. Moreover, all other programs highlighted the fact that staff and teachers were provided with handouts or tools for screening and procedures. They thus included a gatekeeper training component directed to adults in the school setting. Three articles mention that help-seeking behaviour or confidence in the ability of school staff to help increased with the intervention; one article found no increase in help-seeking behaviour despite a decrease in suicidal ideation and attempts; one study did not examine this outcome. It is of interest to note that in all three programs where help-seeking or confidence in staff increased, the teachers, staff or parents played an active role in the program and/or school policies were created and diffused. This suggests that students' level of confidence in adults can be modified via broad-based system-oriented interventions in which staff are given tools to improve their skills and play an active role in the program.

In both programs that looked at suicide ideation and attempts as an outcome, the suicide prevention program showed benefits (Aseltine & DeMartino, 2004; Aseltine et al., 2007; Ciffone, 2007). In both cases, the programs were comprehensive, multi-level interventions that included all staff members and in the case of *Lifelines*, included parents in certain aspects of the program.

In summary, school-based education programs appear to be effective in increasing knowledge about suicide, changing attitudes in a direction that should reduce suicide, increasing help-seeking, and confidence in the ability of adults (teachers or school staff to help). At least for programs that include giving staff tools for referral and response to suicidal youth, there is also evidence of an effect on rates of attempted suicide. The active ingredients in school-based programs include:

- Appropriate presenters and accompanying psycho-educational material (including audiovisual materials that have been adapted to the local culture and milieu);
- Targeting misinformation and inappropriate attitudes prevalent in the community (examples of such inappropriate attitudes might include the ideas that suicide

- should not be talked about; that it is normal and acceptable to consider suicide as a response to relationship breakups or conflicts with the law; or that no help is available);
- Reducing the stigma of seeking help for depression and other forms of emotional distress or conflicts associated with suicide;
 - Training youth to recognize signs of suicide in themselves and in peers and how and where to seek help;
 - Training school staff to act as gatekeepers to guide youth toward appropriate help;
 - Involvement of teachers, school staff and parents in all stages of the program.

There is a need to adapt school-based interventions to Aboriginal communities and to other settings (e.g. recreational centers, community centers) to insure that the information reaches youth who are not in school. Most school-based suicide prevention programs target students in grades 9-10, who are usually 14-15 years of age. Because emotional distress, suicidal ideation, as well as drug and alcohol use may begin earlier than this in many Aboriginal communities, it may be that programs should be aimed at younger children. Prevention programs at an earlier age can focus on family communication, problem solving, and coping skills.

Training of teachers and parents must be adapted to what they already know and to the social and cultural setting. Of course, training adults does not remove all the barriers for communication with students; not all teachers are able to communicate openly with students about such issues. Students need to trust adults and their ability to help. This will be achieved not done just by educating students or teachers but also by implementing policies within the school, making resources available, and ultimately but demonstrating an effective response to those who are in need.

Table 3. School-Based Education and Awareness Programs

Project (Source)	Target population	Intervention	Outcomes
Agir Ensemble pour Prévenir le Suicide chez les Jeunes (Raymond et al., 2003)	Schools in Montérégie region of Quebec	Staff, parent and student psycho-educational sessions	<p>↑ knowledge and appropriate attitudes</p> <p>↑ intent to refer for students</p> <p>No differences for parents and staff</p>
School based psycho-educational program (Portzky & van Heeringen 2006)	Youth from 14-18 years of age in high schools	Psycho-educational program based with focus on peer-helping	<p>↑ knowledge</p> <p>No effect on attitudes but program by gender effect (girls better attitude)</p> <p>No effect on coping</p> <p>No effect on hopelessness</p>
Lifelines (Haines, 2007)	Grade 10 youth	-45 minute class-room lessons -Guidelines for School staff	<p>↑ knowledge and appropriate attitudes</p> <p>↑ confidence in schools capacity to help</p>
South Elgin High School Suicide Prevention Program (Ciffone, 2007)	Grade 9 students from 2 schools in Chicago	School-based: presentations by social-workers, classroom discussions, prevention info, screening, intervention with at-risk students, postvention	<p>Change in attitudes towards suicide</p> <p>↑ knowledge</p> <p>↑ help-seeking attitude</p> <p>Believed to have ↓ suicide attempts requiring medical treatment</p>
SOS (Aseltine et al., 2007)	Youth in grades 9-12, urban setting	Health class for half school year. Education, awareness and screening of at risk youth	<p>↑ knowledge depression and suicide</p> <p>More adaptive attitudes towards depression and suicide</p> <p>↓ self-reported suicide attempts</p> <p>No effect on help-seeking behaviour</p>
Raising Awareness of Personal Power (Cigurilov, 2008)	High school youth between 13-19 years of age	Program integrated in the health curriculum including lectures and activities on mental health, suicide risk warning signs, how to deal with a suicidal peer and available resources	<p>↑ knowledge and appropriate attitudes suicide</p> <p>↑ confidence in self-efficacy</p>

3.1.2 Gatekeeper Training Programs

Gatekeeper training is related to educational programs but emphasizes the training of people in key positions (such as teachers and health care professionals) in the process of detection and referral of youth at-risk. There is good evidence that improving primary care detection of suicidality and depression can reduce deaths by suicide. This has led to interventions to train primary care physicians to recognize and treat individuals at risk for suicide. Specific training to improve the detection and response to suicidal youth also can be provided to teachers, social workers, health care professionals, clergy, police and other community members who are likely to come in contact with youth at risk.

Those closest to a person with suicidal intentions have the best chance of recognizing the “warning signs” and taking action—which will usually mean referral to a trained professional. Thus, parents as well as other community members such as young people can benefit from basic training in recognizing the signs and symptoms of suicide risk and knowing when and how to get help for someone in danger of self-injury. Importantly, many adolescents turn to their friends for help instead of family members or professionals in the community. Peer gatekeeper training (which is usually a component of school-based programs) may therefore be particularly useful for adolescents.

In most remote Aboriginal communities, there are no physicians onsite, so gatekeeper training programs would be directed to other primary care providers, usually nurse practitioners or community workers. This also points to the need to develop ‘gatekeeper’ training for non-professionals who can guide at-risk individuals toward appropriate mental health care even when that may require outside consultation or travel.

A total of 8 articles assessing gatekeeper training programs or interventions were reviewed (Table 4). Some report work completed prior to 2003, but were included because they involved Aboriginal communities or were only more recently evaluated and published.

3.1.2.1 B.C. Suicide Prevention Information and Resource Center

A suicide awareness education program, coordinated by the B.C. Suicide Prevention Information and Resource Center took place at 8 schools in three local school districts of Vancouver between January and April of 2000 (Stuart, Waalen & Haelstromm, 2003). The program was offered to students from grades 9 to 12. All schools already had peer-helper programs in place. Participants volunteered to take part in the study and were therefore self-selected. The training consisted of two half-day sessions and a 3-month follow-up session, in which students were exposed to crisis theory, signs of suicide risk, suicide risk assessment, and community resources available. Active listening, self-care and limit-setting skills were reinforced during the sessions. Finally, role-playing was used to enact scenarios involving suicidal youth. Students were evaluated before the training, after completion of the intervention and 3 months later. Skills were assessed using the

Suicide Intervention Response Inventory (SIRI-II),⁴ attitudes towards suicide intervention were assessed with the Suicide Intervention Questionnaire, and knowledge was evaluated with 8 true or false questions about suicide. Results of this study suggest that the students who received the gatekeeper program gained skills related to suicide intervention, showed positive changes in attitudes towards suicide intervention and increased knowledge, and that these gains were sustained 3 months after the training.

3.1.2.2 Gatekeeper training program, New South Wales, Australia

A gatekeeper training program was developed in Aboriginal communities from the Shoalhaven region in New South Wales Australia through a process of action research (Capp, Deane & Lambert, 2001). A total of 11 community consultation discussion groups were held to explore risk factors, barriers to help-seeking and dissemination of knowledge. These discussions provided the basis for developing the gatekeeper training workshops. Community workers and members of the community were recruited through personal invitation, word-of-mouth, hand-delivered fliers, and posters in community centers. The training was condensed into a single day workshop presenting topics including risk of suicide, local statistics, referring to professionals, available resources, awareness of suicide, signs of potential risk, communication and listening skills and how to respond to someone at risk. Activities such as role-playing and small group exercises were incorporated in the training. A pre-post intervention design was used to evaluate the program. A Suicide Opinion Questionnaire was used to assess attitudes towards suicide. A 10-item questionnaire was used to assess knowledge about suicide. Two broad questions evaluated people's intention to help and intention to refer at risk individuals. Finally, participants' confidence in their capacity to identify individuals at risk was measured using a single item scale. Results of the analysis suggest that the gatekeeper training increased participants' knowledge and confidence; however, intention to refer at risk individuals actually decreased. The authors suggest that this reluctance to refer people for help may be due to the fact that many Aboriginal communities are trying increase self-determination and therefore try to deal with situations within the community when they feel able to do so.

3.1.2.3 Suicide Prevention Forums, Western Australia

Gatekeeper training was an important part of the Suicide Prevention Forums developed by Westerman (2003, 2004) to address suicide prevention among Aboriginal peoples in Australia. The long-term objective of the forum is to reduce the number of suicides among this population. The immediate goals of the forum are to increase skills and knowledge of local services providers, increase knowledge with regards to depression and suicidal behaviors among community members, increase community members' abilities to recognize and help individuals with suicidal ideation or depression, as well as to link their peers with appropriate resources, and to develop community gatekeepers.

⁴ http://www.eaad.net/enu/media/suicide_intervention_response_inventory_siri-2.pdf

The forums were elaborated as a function of a needs analysis done previously within the community. Skills assessment of participants was done prior to the forum. The program consisted in training in suicide intervention and prevention, beliefs about suicide, cultural and community values, myths about suicide, risk factors among Aboriginal people, the nature of depression and risk factors in Aboriginal communities, the role of depression in suicide, warning signs of suicide, using screening tools to identify at risk individuals, how to respond to suicide risk and basic culturally adapted counseling techniques. A total of 997 individuals have taken part in these forums. Participants were evaluated on overall knowledge and skills, knowledge of depression and suicidal behaviours, skills needed to work with at risk aboriginal individuals and participants' intention to help. Both community members and service providers showed an increase in knowledge with the forum. Community members' level of confidence in referring individuals to appropriate services included dramatically with the forum. Finally, both service providers and community members showed a positive shift in attitude towards helping.

3.1.2.4 CD-ROM and video training as suicide prevention in Nunavut

Haggarty and colleagues (2006) evaluated the feasibility and acceptability of using a CD-ROM with video materials as a training tool for suicide prevention among community members living in Nunavut. The 30-minute CD-ROM film presentation entitled 'Health and Well being in Nunavut' was developed to provide counsellors, care providers and community members training to evaluate risk of suicide and to manage suicidal behaviours in the community. Recruitment for the study was done via public notices in the hamlet offices and throughout the community and local radio announcements. A total of 24 volunteers agreed to participate; however, pre and post-intervention test scores were obtained for only 19 participants. Individuals were asked to answer questionnaires before and after viewing the film, which could be seen individually or in small groups. A computer was available at the health center for viewing the CD and participants could take the time they felt necessary to see the film. The film included a section on how to manage stress and improve self-esteem, crisis intervention skills, risk factors and interventions for individuals at risk. Despite the fact that 46% of participants had never used a computer before, 95% felt that this technology would be helpful for training purposes. Results of this study suggest an increase in knowledge about suicide after the training. This type of resource could easily be delivered via the Internet.

3.1.2.5 Suicide Action Montreal, Three Day Training Program

An evaluation of a similar gatekeeper training program was undertaken in Montreal (Chagnon et al., 2007). The 3-day training program was developed for and implemented by Suicide Action Montreal, the regional suicide prevention centre, and was aimed at individuals working with youth. A directive, problem-solving approach was used to help trainees learn about important warning signs, skills to screen, intervene and refer as well as knowledge of available resources. Lectures and role-playing were used as specific methods to improve trainees' attitudes towards intervention with suicidal youth. In all, 71

individuals from ten different institutions and organizations in the greater Montreal area participated in the research. About 2/3 of individuals received the training whereas other individuals served as controls. Attitudes were assessed using the Suicide Intervention Questionnaire (STQ). A tool to evaluate knowledge and skills was created based on the Comprehensive, Competency-Based Inservice Training (CCBIT) Model.⁵ Child psychiatrists and clinicians within school and community settings met together to determine the essential knowledge and skills required to help a suicidal youth. A 40-item questionnaire was developed from these recommendations and used to assess impact of the training. Trainees improved significantly on knowledge, attitudes and skills as compared to the control group. Gains in attitudes were sustained 6 months after the training; however, the level of knowledge and skills decreased with respect to the immediate post-training levels, suggesting a need for refresher sessions. The pre-training levels of knowledge of the participants were quite high and a group with less prior knowledge might show greater effects of training. The authors suggest that more targeted training specific to the needs of the trainees would be even more beneficial.

3.1.2.6 STORM Program

The STORM program is a skills-based educational intervention offered to primary care and mental health care workers (Appleby et al., 2000). The program offers training to primary care and mental health workers in assessment and management methods for patients with suicidal ideas. The training includes sessions on: assessment of suicide risk, mental status, and psychosocial problems; clinical management of suicide risk; clinical management of emotional crises through problem-solving; and methods of prevention of further crises (the latter was only addressed to mental health practitioners). The main goal of the program is to help health workers develop clinical communication skills when working with an at-risk population. For this purpose role-playing and video-feedback methods are used in the training.

In an evaluation of the STORM program, a total of 458 mental healthcare workers between the ages of 19-64 attended the training, which was delivered by 3 mental health nurses at 3 sites over a 6-month period (Gask et al., 2006). The participants' ages ranged from 19-64 years of age. About 50% were qualified nurses; the remaining 50% were nursing assistants, doctors, occupational therapists, support workers, nursing students and social workers. To assess Attitudes with regard to suicide prevention were assessed using the Attitudes to Suicide Prevention Scale (Herron, et al., 2001). Confidence in assessment and management of suicidal patients/clients was also assessed using the Suicide Intervention Response Inventory. Data collection took place before training and 4-6 months post-training. Results of this study suggest positive changes in attitudes towards suicide prevention, and statistically significant changes in self-confidence in one's skills to help someone at risk of suicide. No differences were observed on the suicide intervention response inventory. Moreover, on rating videos of participants before and after intervention on various skills there was little change observed. Finally, a comparison

⁵ <http://www.ocwtp.net/PDFs/WhatIsCompetencyBasedTraining.pdf>

of suicide rates in the catchment area for the two-year periods before and after the training program did not find any change in suicide rates, suggesting that this type of training by itself is not sufficient to reduce the suicide rate in the population (Morriss, et al., 2005).

3.1.2.7 Gatekeeper training program, Marietta, Georgia

A randomized trial of a gatekeeper training program was conducted in Marietta, Georgia (Wyman et al., 2008). A total of 32 schools participated. Schools were randomly assigned to the intervention group versus the wait-listed control group. All staff members were invited to participate in the intervention. A total of 112 staff received the intervention and completed both pre- and post-intervention questionnaires. The training consisted of a 1.5 hour presentation by a gatekeeper instructor who provided staff with information on rates of youth suicide, warning signs and risk factors. Participants were taught how to ask students about suicide, how to encourage them to get help and when and how to refer at-risk students to appropriate resources. Several months after the training, staff were offered a 30-minute refresher session. For evaluation purposes, staff filled out a suicide prevention survey which assessed knowledge, appraisal regarding performing suicide prevention activities, and self-reported behaviours with students. In addition, grade 8 and 10 students were asked to fill out an annual school survey which included questions pertaining to suicide ideation and behaviours as well as help-seeking attitudes.

The results suggested that the gatekeeper training program significantly improved knowledge and appraisal of staff members especially for those with lower baseline knowledge. The impact on behaviours towards students was only significant for staff members with high baseline interactions with students. The refresher training session did not seem to provide additional benefits. Self-reported attempted suicide among student did not change over the year. Students who reported a history of attempted suicide were significantly less likely to go for help than students with no reported history of suicide attempts. The authors suggest that one of the obstacles to communication with students is their reluctance to talk to adults, especially when students are at high risk of suicide. Results from the school survey suggest that students with a history of suicide attempts do not believe that adults or counsellors can help. This finding highlights the importance of promoting a change in attitudes among students in order to open communication between students and trained staff.

3.1.2.8 Maine Suicide Prevention Program

The Maine Youth Suicide Prevention Program (MYSPP), originally developed in 1997, was recently evaluated.⁶ The program was designed to increase the ability of school staff to identify, refer, and support youth at risk for suicide, and manage the crisis precipitated

⁶ An Evaluation of Maine's Comprehensive School-based Youth Suicide Prevention Program, http://www.maine.gov/suicide/docs/Final_CDCEvalPublicReport3-09.pdf

by a student suicide attempt or completion by providing support to students and staff for grieving. The program includes the following components:

- training and education programs in youth suicide awareness;
- development and dissemination of school protocol guidelines to help schools write their own protocols for suicide prevention and intervention;
- training “Gatekeepers” as key persons in schools to receive first referrals of students thought to be at risk for suicide;
- providing technical assistance to school personnel facing suicide in their schools;
- training school health teachers to deliver Lifelines student lessons;
- training instructors to facilitate the Reconnecting Youth program designed for youth demonstrating risk behaviors often associated with suicide;
- tracking suicide and self-inflicted injury data.

A project funded by the Centers for Disease Control and Prevention in 2002, studied the implementation of these components, with a focus on the participation of school staff in a one-day gatekeeper training workshop (Madden et al., 2007). The evaluation of this training suggested that it fulfilled its goal of increasing staff ability to identify and respond to students who are at risk for suicide. One limitation of the evaluation was that there was no control group to clarify whether the training itself was responsible for the outcomes.

3.1.2.9 Analysis

Of the 8 gatekeeper programs reviewed, three were directed to Aboriginal communities. Five received systematic pre-post evaluations (Table 4). A single study used a randomization procedure and a control group (Wyman et al., 2008).

The objective of all evaluations was to assess the effectiveness of a training program in increasing knowledge and changing attitudes of trainees. In three studies, confidence or ability to communicate or respond to a difficult situation was also assessed. In five programs trainees were taught prevalence rates, risk factors, warning signs, available resources and skills to properly respond to someone in need. Seven of the training programs were group sessions with a trainer, while one evaluated the use of a CD-ROM as method of training. The shortest training program was one given to teachers and staff members of a school. This training lasted 1.5 hours with a refresher course given 6 months later. The CD-ROM was only a 30-minute program but participants took between 30 minutes and two hours to view it. Finally, two peer training programs were evaluated and were both a total of one day in length. These two programs combined a theoretical component and a role-playing component allowing trainees to practice new skills.

All programs found increased knowledge and a desired change in attitudes toward suicide. Two studies found an increase in trainees’ confidence in their ability to help people in crisis and another study showed an increase in skills as evaluated by responses to vignettes. A study assessing the benefits of training school staff found increased

number of interactions with students concerning suicide; however, this was found only among those who interacted with students at this level before the intervention. This study indicates that not everyone responds similarly to training, which suggests that training should be modified as a function of baseline knowledge, attitudes and aptitudes. Results from one of the school-based programs where adults and staff were invited to participate in the intervention corroborate this finding. Neither parents nor staff members showed gains in knowledge or attitudes compared to baseline despite the fact that students did. The authors of this study believed that this was due to the already high level of knowledge and positive attitudes of parents and staff participating in the intervention.

In summary, gatekeeper training has been shown to be effective in increasing knowledge and confidence to respond in several studies and has been adapted to reach Aboriginal community members. This type of training among physicians has been directly to suicide outcomes but evidence for the effectiveness of community gatekeeper training is more limited. Nevertheless, this type of program is a component of most comprehensive suicide prevention strategies.

Table 4. Gatekeeper Training Programs

Project (Source)	Target population	Intervention	Outcomes
Aboriginal gatekeepers (Capp et al., 2001)	Aboriginal community members	1 day gatekeeper training	↑ knowledge ↑ confidence in helping skills ↓ intention to refer
Suicide Prevention Forum (Westerman, 2003)	Aboriginal community members and service providers of Western Australia	Forum on cultural components of mental health and suicide, knowledge, skills for intervention, prevention and postvention	↑ knowledge ↑ skills ↑ confidence in referring people to appropriate resources
Peer gatekeeper training (Stuart, et al., 2003)	Students in Grades 9 to 12 in three local school districts of B.C.	2 half days sessions and a refresher session 3 months later	↑ skills and appropriate attitudes ↑ knowledge
Multimedia suicide education (Haggarty et al., 2006)	Inuit community members	30 minute CD-ROM presentation	↑ knowledge Acceptability of training was high
Suicide Action Montreal (Chagnon et al., 2007)	Staff from schools, community organizations and institutions serving youth	3-day workshop	↑ knowledge ↑ attitudes ↑ skills maintained at 6-months
STORM (Appleby et al., 2000; Gask et al., 2006).	Primary care providers (nurses, other health professionals)	4 two-hour modules	↑ attitudes ↑ confidence in helping someone at risk
School staff gatekeeper Training (Wyman et al. 2008)	Staff of middle schools and high schools	1 1/2 hour training with 30 minute refresher session	↑ knowledge and appropriate attitudes Only ↑ prevention behaviours of staff already active in helping students
Maine Youth Suicide Prevention Program (Madden et al., 2007)	High school staff	One day gatekeeper training program	↑ ability to identify and respond to students at-risk

3.1.3 Population- and Community-Based Programs

Public health initiatives are aimed at whole populations. They have the advantage of reaching youth who may not present to health care, are not in school, and even some of those who may be relatively socially marginal. The strength of population interventions is related to their disadvantage: they address many people who may not need intervention and do not focus limited resources on those most in need.

We found three articles describing or evaluating public health primary prevention initiatives for suicide prevention among youth published since 2003 (Hegerl, Althaus, Schmidtke, & Niklewski, 2006; Oliver et al., 2008; Omar, 2005) (Table 5).

Community-based programs use population or public health methods but emphasize the engagement of communities. Given the importance of community autonomy and self-direction, this approach is particularly relevant to Aboriginal populations. An earlier community-based program conducted with the U.S. Airforce remains one of the clearest demonstrations of the positive effect of a comprehensive program (Knox, Litts, Talcott, Feig & Caine, 2003). Finally, we describe two Aboriginal programs of particular relevance to the Canadian context.

3.1.3.1 Stop Youth Suicide Campaign, Kentucky

The Stop Youth Suicide Campaign was a public health initiative in Kentucky (Omar, 2005). The objective of the program was to increase community awareness of the problem of youth suicide, assess community needs and increase the knowledge of parents, teachers, health professional and teenagers. The project began in 2000 with a press conference followed by a media information campaign on television. A video was made by survivors of suicide attempts and families and friends of people who died by suicide. Health care providers were offered 60 workshops and lectures on youth suicide prevention. Smaller campaigns were launched in high schools and religious congregations to educate parents about the problem of youth suicide. Although this program was not evaluated, the authors note that they were contacted by hotline or by mail approximately two thousand times over a four-year period by parents and youth with suicidal ideation. There were at least 13 adolescents with very serious suicidal ideation who changed their minds after the contact. Unpublished results of surveys done over the course of the intervention suggested an increase in awareness with regard to youth suicide.

3.1.3.2 The Nuremberg Alliance against Depression, Germany.

The Nuremberg Alliance against depression was a 2-year action program that took place in Nuremberg, Germany as an extension of the UK Defeat Depression Campaign (Hegerl et al., 2006). The UK Defeat Depression Campaign, started in the 1990s, aimed to increase the general population's general understanding of depression and reduce stigma

within the community as well as reduce the national suicide rate by 15% by year 2000 (Paykel et al. 1997). The Nuremberg Alliance program targeted primary care physicians, the media and the general public. Intervention activities were performed at four different levels. First, primary care physicians were introduced to an interactive educational package, which provided information on diagnosis and therapy for at-risk individuals. A total of 12 four-hour sessions were provided over a 2-year period. Two videos were included, one for physicians and one for patients. A second level of intervention targeted media, other health professionals and the lay community with a publicity campaign to reduce stigma and increase referral. Various lectures and events took place over the two years, brochures were distributed and a website was created. A 10-point guide for media coverage was developed. A third category of activities included educational workshops for community helpers and health care providers to increase knowledge of the problem of suicide and available resources as well as the capacity to assess risk. Finally, self-help groups were created for depressed people, suicide attempters and their relatives. At-risk individuals were provided with emergency cards that guaranteed direct access to emergency services in case of a suicidal crisis. Attempted and completed suicides were monitored throughout the intervention and compared to rates obtained in Würzburg, a nearby city which did not receive the intervention. The results of this study suggest a 24% decrease in deaths by suicide and attempted suicides in Nuremberg, whereas rates in Würzburg slightly increased over this time period. There was a comparable reduction in rates for both males and females. This program has been extended through the European Alliance Against Depression to 17 countries (Hegerl & Wittgenburg, 2009).

This program involves interventions at four levels: (i) education of primary care physicians to improve detection and treatment of patients with depression (including the use of short screening tools, how to address depression and suicidality with patients, and interactive training sessions with role playing); (ii) a public education campaign through mass media to reduce stigma and encourage help-seeking for depression; (iii) training of community facilitators who are in contact with high-risk groups (teachers, police, clergy, social workers, care givers, and prison workers); and (iv) providing support and improved follow-up to individuals who have made suicide attempts (e.g. by providing them with an emergency card to facilitate access to services, aftercare resources and self-help groups). The program has been adapted to different European social and cultural contexts but has not yet been clearly evaluated.

3.1.3.3 Suicide Prevention Campaign, Cuyohoga County, Ohio

In 2004-2005, local agencies and the County Community Mental Health Board in Cuyohoga County Ohio initiated a suicide prevention campaign using public education (Oliver, 2008). Both suicide survivors and family members of a person who died by suicide participated in developing posters to convey the message that suicide is preventable. The posters were placed in public areas for two 5-month periods. To evaluate the impact of this intervention, the researchers compared the number of calls related to suicidal crises that were received by a mobile crisis team and a 24/7 telephone crisis hotline before, during and after each campaign period. The hotline service typically

received 3500 calls per year. Results of this analysis suggest that the number of calls received during the first phase of the campaign increased by 29%, which was statistically significant. Between both phases of the campaign the number of calls decreased significantly but remained above the baseline rate and increased again by 15% during the second period of displaying the posters. These results suggest an increase in use of crisis services during the months of a suicide prevention campaign. This study did not provide any information on the effectiveness of the intervention in reducing attempted and completed suicides.

3.1.3.4 U.S. Air Force Suicide Intervention program

Perhaps, the clearest demonstration of a successful suicide prevention intervention remains the comprehensive program devised for the U.S. Air Force. This program achieved a 33% reduction in deaths by suicide over a 6-year period (1997-2002 compared to 1990-1996) (Knox, Litts, Talcott, Feig & Caine, 2003). The program focused on reducing the stigma of seeking help for mental health problems, improving knowledge about mental health among airmen, and changing U.S.A.F policies and practices to facilitate access to and use of mental health services.

The program included 11 major components: (1) training leaders on suicide and violence awareness; (2) providing suicide awareness training in general military education; (3) providing leaders with guidelines and resources for referring individuals at risk for treatment; (4) allotting one person at each mental health centre to devote their time to prevention work; (5) providing “buddy” or peer training for all personnel and specific training for gatekeepers; (6) changing policies to insure that individuals under legal investigation are assessed for suicide risk; (7) establishing critical incident stress management teams to respond to traumatic events, including suicides; (8) integrating services to improve flow of information and referral (including family advocacy programs, family support, health promotion and wellness centres, mental health clinics, child and youth programs, and chaplains); (9) insuring confidentiality in counselling and psychotherapy so that individuals are more willing to come for help and confide their problems; (10) providing survey assessment tools and information to leaders to assess local needs and impact; and (11) tracking social, behavioural and psychological risk factors in the population. A Family Advocacy Program was a key component and the prevention program also had a positive impact on levels of domestic violence.

3.1.3.5 Community Based Suicide Prevention Program, Alaska

A program emphasizing community projects was implemented in Alaska in 1988. The Community-Based Suicide Prevention Program (CBSPP) provided grants to communities across the whole state to support community-based activities such as cultural heritage instruction, support groups, recreational activities, volunteer helper systems, counselling, and crisis response. Forty-eight communities received grants in the first year, and this number grew to 66 in 1995 (20 communities maintained their projects continuously over

this period). Each community implemented one or more projects from a wide range of potential approaches. An evaluation from 1989 to 1993 found that while project communities began with higher suicide rates than the overall Alaska Native rate, their rates declined faster than the state-wide rate at the end of 3 years. The Alaskan experience suggests that it is not so much the specific type of program as the degree of community initiative, organization and involvement that results in the mental health benefits. It appears that communities that were able to sustain their programs over several years had the best outcomes (S. Soule, *personal communication*, June 7, 2005; Henderson, 2003).

3.1.3.6 Western Athabaskan Tribal Nation, New Mexico

The best-tested program specifically designed for an Aboriginal population comes from the work of May and colleagues (May et al., 2005). This public health initiative was developed for a Western Athabaskan Tribal Nation in rural New Mexico in 1989 that was suffering from a high rate of suicide among youth aged 15-19 years (O'Carroll, Mercy & Steward, 1998). Initially, the program targeted Aboriginal youth between the ages of 10 and 19; later education and awareness-raising activities were added to the project to include 20-24 year olds, for a total population of about 800 young people. The aim of the program was to reduce the incidence of attempted and completed suicides among adolescents. More specifically, the objectives of the program were to: (1) identify suicide risk factors specific to the community; (2) use this information to identify individuals and families at high risk for suicide, violence or other mental health problems; (3) design and implement prevention activities to help these vulnerable individuals and families; (4) provide direct mental health services for high-risk individuals and families; and (5) enhance community knowledge and awareness of suicide and mental health issues. Tribal leaders, health care providers, parents, elders and youth were actively involved in developing and implementing the program.

The program included multiple levels of prevention, and people from many sectors of society were engaged, including tribal leaders, health care providers, parents, elders and youth. The program took shape after more than 50 interactive community workgroup sessions where people were asked to discuss and define the problems and issues in the community, the barriers to resolving the problems, and what could be done to help. In general, suicide was seen as an element of a larger problem that could not be addressed on its own. An adolescent suicide prevention program was designed based on the insights from these discussions and integrated the following components: (i) surveillance through data and information gathering; (ii) screening in multiple settings; (iii) training natural helpers; (iv) a school based prevention program focused on skills learning; (v) community education on various health related topics; and (vi) provision of counselling for people who seek help.

The program consisted of the following major components: (1) school-based and community education programs for youth and adults on topics including suicide but also parenting and life skills; (2) about 10-25 youth volunteers were trained each year as

“natural helpers” and peer counsellors to respond to young people in crisis and notify mental health professionals of any need for assistance. These natural helpers also provided school and community education on alcohol and drug prevention, self-esteem and team building, and suicide prevention; (3) systematic outreach to families after a suicide or traumatic death or injury; (4) immediate response and follow-up for youth reported to be at risk; and (5) suicide risk screening in mental health and social service programs. The program provided basic mental health and social services that were previously unavailable in the community and received sustained funding to develop a well-resourced service that ultimately included 21 clinical staff as well as support staff.

The program has had three formal evaluations over its span, which have been important for its development and continued funding (May et al., 2005). Descriptive data were collected two years before the beginning of the project and 13 years into the program. Data on deaths by suicide were collected by local clinics and the State Office of Medical Investigation. Data on suicidal gestures and attempts were documented during weekly round-table meetings including the program director and psychologists working on the program.

The level of suicidal acts among youth 15-19 years of age was reduced almost immediately after the implementation of the program and this improvement continued over the following 12 years, with a net reduction of about 73% in suicide attempts and less life-threatening suicide ‘gestures’. This reduction was seen in the youth cohorts that were the focus of the intervention and not in those over 25 years of age. However, there was no comparison community and it is possible that the observed improvement reflected fluctuations in suicide over time. As well, the number of deaths by suicide was too small to demonstrate a clear effect of the program, although there was some suggestion of a beneficial effect. Nevertheless, at present this is the best-tested comprehensive program in an Aboriginal population and illustrates the principles and components that should be included in an effective community-based approach. A cost-benefit analysis using an estimate of quality adjusted life years (QALY) indicated the program was highly cost effective (Zaloshnja et al., 2003).

3.1.3.7 Analysis

Clearly, comprehensive public health interventions can reduce suicide attempts. The U.S. Air Force program provides the clearest demonstration of the impact of a comprehensive population based program. Although some of the details are specific to the military context, this comprehensive program could be translated into a set of community, regional and national interventions for Aboriginal peoples. Some of the specific elements that need to be addressed for this knowledge translation include:

- 1) Mapping the appropriate level and type of leadership for specific program components. Community leadership is complex and the responsibility, knowledge and capacity for taking the lead in specific areas of health promotion and suicide prevention varies with geographic region and population.

- 2) Adapting mental health service delivery to remote regions. This requires the use of local resources (both professional and nonprofessional) as well as mobile teams and distance support through teleconferencing and related technologies.
- 3) Replacing “critical incident management” with methods more appropriate to community contexts. This approach was originally developed in the setting of professional groups (like firefighters or disaster workers) and has been contentious because not everyone benefits from a small group process of disclosure and debriefing and there may be harmful effects. Other models that use local cultural and community support systems and that recognize that most individuals will not experience persistent distress after a crisis must be further adapted to Aboriginal contexts.
- 4) Developing tools to track mental health needs, services and outcomes in ways that are culturally valid and appropriate for the social context.

The program described by May and colleagues (2005), which aimed at reducing suicidal ideation and behaviours among youth, was specifically designed for a large indigenous community in the Southwestern U.S. Although this study did not have a control group for comparison, data compiled over 13 years on both suicide attempts and deaths provides a high level of evidence for its efficacy. The design of this program is quite different from that of the other programs evaluated in that it set up a comprehensive suicide screening, referral and treatment system. The program included screening youth for suicide risk in various settings, training natural helpers, a school-based prevention program, community education workshops and a counselling service within the community. Because of its relevance to Aboriginal communities in Canada, this program is discussed further in Section 4 of this report.

The other programs were designed for larger populations and based much of the program on publicity, media and educational workshops. These programs used the media to convey a message about suicide as a socially and personally negative act and to present alternative ways of coping.

The study in Ohio, evaluating the effects of a media campaign on help-seeking behaviours, found a net increase in referrals while the campaign was running and a decrease between campaign periods suggesting that public information critiquing suicide as an option can increase awareness and guide people in need (Omar, 2005).

Two studies gathered data at various time points to see whether the project brought change on rates of suicide and attempts (Hegerl et al., 2006; May et al., 2005). Despite important differences in protocols both the study performed in an Aboriginal community and the Nuremberg Alliance Against Depression found important beneficial and direct effects on reducing suicidal behaviours.

Table 5. Population and Community-Based Initiatives

Project (Source)	Target population	Intervention	Outcomes
Stop Youth Suicide Campaign (Omar, 2005)	Kentucky	Media information campaign, workshops and lectures on youth suicide prevention, hotline service	Unpublished results suggest ↑ in awareness with regards to youth suicide
Defeat Depression Campaign and Nuremberg Alliance Against Depression & Defeat Depression Campaign (Hegerl et al., 2006)	Nuremberg	Interactive educational package for physicians, publicity campaign to reduce stigma, brochures distributed, lecturers offered, media coverage guide elaborated, educational workshops, emergency cards for at risk individuals	↓ completed and attempted suicides
Mass Media Campaign (Oliver et al., 2008)	Cuyahoga County, Ohio	Media campaign, crisis hotline	↑ number of calls received at hotline during campaign
U.S. Airforce (Knox, et al., 2003)	>5,000,000 Airforce personnel	Information campaign to reduce stigma, increase mental health literacy, changing policies	↓ suicide, homicide, and family violence
Public Health Approach to suicide prevention (May et al., 2005)	Aboriginal Youth between 10-24 of Western Athabaskan Tribal nation	Interactive community workgroup sessions, surveillance, screening, community education, school-based prevention program, counselling.	↓ suicidal gestures and attempts

Although most public suicide prevention programs aim to reach the age groups most immediately vulnerable (i.e. adolescents and young adults for most Aboriginal communities), prevention can also focus on much earlier risk factors. Many contributors to depression and suicide begin in childhood, including physical and sexual abuse and neglect (Dube et al. 2001). Children under the age of 12 years are also an important target group for primary prevention (Mrazek & Haggerty, 1994). This requires family programs

and support aimed at preventing abuse, reducing conflicts, and reinforcing positive parenting. Family-centred approaches aimed to improve the home environment for young children may be effective long-term preventive measures though direct evidence is lacking. The effects of childhood abuse may last even into old age (Draper et al., 2008). This points to the potential value of early childhood interventions, including family and parenting support programs. Ensuring that children have a good start in their early development should increase their resilience later in life and reduce suicide along with many other mental health problems.

3.2. Screening Programs

Screening programs usually involve giving a questionnaire or other brief measure to a whole population to identify those at risk, who can then receive more systematic evaluation and appropriate intervention. However, no screening method is completely accurate. Hence, some individuals who are suicidal will be missed (*false negatives*) and some who are well will be mistakenly identified as suicidal (*false positives*). Screening itself may have both beneficial and harmful effects, making individuals aware of problems that require attention but also increasing worry and potential stigmatization. Once screened, individuals must be given an effective intervention that reduces suicide risk. If there is no effective treatment method available, then screening has little value and the harms (including cost and potential for stigma) may outweigh any benefits.

Direct case finding by screening and intervention for high-risk youth may be the most effective school-based strategy (Shaffer & Gould, 2000). However, screening is only efficient if it identifies individuals at real risk and there are appropriate interventions available. Most screening methods have high rates of false positives. In a study of high school students in the U.S., initial screening identified 29% of students as “at risk” for suicide (Hallfors, et al., 2006). It was impossible to respond to this level of perceived need and school staff actually decided to stop screening. In order to make screening useful, there must be an accurate screening measure and adequate resources in place to respond appropriately to those found to be at risk.

Both screening tools and recognition by school professionals are imperfect in identifying individuals at risk of suicide and mental health difficulties. A recent study compared screening and professional recognition to determine which groups of individuals are hardest to correctly identify. The Columbia University Teen Screen (CSS), a widely used questionnaire for identifying youth at risk (Shaffer et al., 2004) was completed by 1729 students between grades 9 and 12 from 7 high schools in New York City. Overall, 28% of students scored positive on the CSS. Clinical and administrative staff from each school were then asked to complete a brief screening questionnaire for each child assessed. For each child they were asked: 1) “Are you currently concerned about the emotional status of this student?”; 2) “Do you plan to see the student again?”; and 3) “Have you referred this student or do you plan to refer to an outside agency?” The majority of students identified by the screening tool as being at risk were not identified by a school professional. However, 13% of individuals at risk were identified by staff only and not by

the screening tool. The use of a screening tool combined with additional screening by staff therefore is better than relying exclusively on one method alone.

Westerman and colleagues (2003) developed the WASC-Y, a suicide risk screening questionnaire for Aboriginal youth in Western Australia. The WASC-Y was created after extensive consultation with Aboriginal youth (aged 13-17), Aboriginal parents and Aboriginal health /mental health workers in Urban and Rural locations throughout Western Australia. The development of the instrument focused first on identifying risk factors related to suicide, depression, anxiety, drug/alcohol use, and impulsivity (included as a potential contributor to suicide risk). Importantly, the researchers also considered the potential role of culture as a moderator of risk through the development and validation of a cultural resilience subscale. The strength of the WASC-Y lies in the fact that it was developed from within the Aboriginal culture and has many features to improve cultural sensitivity, including use of culturally appropriate language, items based on common cultural idioms of distress, efforts to reduce the stigma of giving positive responses, and a response scale appropriate for children indicating severity or frequency with an icon of a hand with from one to five digits coloured in. The initial validation of the WASC-Y was with a group of 183 Aboriginal youth from Western Australia. Since then, data have been gathered from the Northern Territory, New South Wales, Queensland, South Australia and Victoria with validation of the tool across these distinct Aboriginal populations looking very promising (Tracy Westerman, *personal communication*, May 14, 2009). There has been no evaluation of the impact on suicide of any program using the WASC-Y, linked with a treatment program. Nevertheless, this is an innovative, culturally informed approach to creating a screening tool and there is interest in conducting similar work in Inuit communities (Tagalik & Joyce, 2006).

Although many instruments have been developed for screening, few specifically address Aboriginal youth. As described by Westerman (2003), several factors may make general screening tools less accurate for Aboriginal populations, including: having normative data only for mainstream populations; using tests that are not linguistically adapted and that are based on a specific cultural perspective leading to interpretation biases; and a lack of attention to culturally meaningful emotional, spiritual and behavioural aspects of experience. Moreover, the history of institutional power relations and oppression may make Aboriginal people suspicious of the whole testing process.

Severe depression is a major contributor to suicide risk in all age groups. Recent US guidelines affirm the value of screening adolescents (12 – 18 years of age) for major depressive disorder when integrated systems of care are in place to allow appropriate follow-up and intervention (U.S. Preventive Services Task Force, 2009; Williams, O'Connor, Eder & Whitlock, 2009). The review found insufficient evidence for the benefit of screening younger children. Well-studied screening tools for depression in adolescents include the Patient Health Questionnaire for Adolescents (PHQ-A) and the Beck Depression Inventory-Primary Care Version (BDI-PC).

Screening alone is of little or no value without appropriate follow up. To follow through on any screening effort there must be reliable and effective helpers, who youth trust, and

who can provide appropriate support and interventions. This may be an issue in some remote and poorly resourced communities. When outside helpers or mental health professionals are involved they must have adequate knowledge of and sensitivity to cultural issues.

3.3. Treatment Interventions

Secondary prevention in the area of suicide usually means providing treatment or other interventions for individuals who have been identified at high risk, and/or who have been diagnosed with depression or other mental health problems. Much of the literature on the treatment of depression and other disorders associated with suicide risk has implications for secondary prevention. Evaluation of secondary prevention programs attempts to identify an at-risk population and determine whether that intervention has reduced subsequent suicidal behaviours.

3.3.1 Crisis teams and crisis lines

Crisis teams and crisis centres are a common form of secondary prevention. Crisis teams or services allow a rapid response to persons at immediate risk that can prevent their self-injury or death. This requires having skilled helpers available on site or by teleconferencing to manage a crisis situation as well as providing long-term support involving local professionals and/or community and family helpers. There must be ready access to culturally appropriate mental health care that respects and is consonant with local, cultural values. The response to a crisis situation in remote, isolated communities requires effective links to regional hospitals and training of potential support persons in each community. A “crisis centre” able to accommodate short-term stays for crisis treatment may have some effectiveness, particularly if the centre is run by Aboriginal persons. Of course, removing individuals from the interpersonal, family or community context that triggered their distress may leave the situation unresolved and individual-centred crisis services must be supplemented with more community-based interventions. When no local services are available, an online support group can provide more long-term suicide prevention (Gilat & Shahar, 2009).

Another form of secondary prevention is crisis telephone lines. Crisis telephone lines have had limited impact in the general population but may have more value in small, remote communities. In these locations, other sources of help are scarce and telephone support allows a measure of privacy to talk about painful situations. The Baffin crisis telephone line, Kamatsiaqtut was developed in the early 1990s by community members, and provides counselling and contact services for anyone in need (Tan et al., 2005).⁷ Community ownership has been essential for success of the program; the service is delivered entirely by volunteers and has as many Inuktitut speakers as possible on the lines (about 80% of the population served is Inuit). The program was developed using conventional crisis line models, but adapted to the local setting and culture, and strict rules are used to maintain anonymity and confidentiality. An average of three calls are

⁷ <http://www.kamatsiaqtut.com/>

received per night (the lines are open from 7 p.m. to midnight). Over 400 people have been trained by the service. The program has been expanded to service half of the Northwest Territories and a large portion of Quebec (in area code 819) toll-free; two other lines in the NWT have been developed based on this model. Such services can offer help with a level of confidentiality that may be impossible in many small communities.

A workshop and interviews with survivors of suicide attempts provided a number of important ideas about effective use of a suicide hotline (National Suicide Prevention Lifeline Consumer/Recipient Subcommittee, 2007):

- listening and talking the individual through the crisis rather than immediately moving to an intervention can be helpful;
- feelings of isolation are usually intense around the time of a suicide attempt and so engaging the person in conversation about close people in their life can counteract this sense of isolation;
- crisis intervention for people who are not acutely suicidal contribution to prevention both by reducing distress and by making it more likely the person will call when they are suicidal;
- follow-up calls from a crisis line worker (that respect confidentiality) can strengthen feelings of support and connectedness , potentially reducing suicidality. The follow-up should;
- spirituality and faith are important sources of resilience and recovery; and
- peer support is a crucial resource because trust, honesty and connection can be established more readily with others who have had similar experiences.

These recommendations are based on the experience of survivors and need further study to examine their effectiveness in different crisis line settings.

3.3.2 Primary care and psychotherapeutic interventions

As discussed earlier, most people who die by suicide have a psychiatric disorder (most commonly, a mood disorder, personality disorder, or substance abuse problem). In studies in the general population in Britain, Finland, Sweden and the U.S., about 75% of people who die by suicide have contact with a primary care provider in the year before they die, while less than one in three people have contact with mental health services before their death (Luoma, Martin & Pearson, 2002). A study in Nunavik found that about 1/3 of youth who died by suicide had been in contact with primary care services during the month before their death (Boothroyd, et al., 2001). (This rate was the same for controls.) Thus primary care contact represents an opportunity for prevention. Recognition and treatment of depression and other mental health problems by primary care providers and appropriate treatment is a key component of suicide prevention. Estimates based on studies of youth suggest that successfully treating all cases of major depression and other mood disorders could reduce the rate of suicide by about 40%; elimination of substance abuse would reduce suicide rates by 20%; and elimination of all conduct and antisocial disorders would reduce suicide by 20% (Fleischmann et al., 2005).

Depression is generally more easily treated than either substance abuse or conduct disorder.

There is both direct and indirect evidence that delivery of mental health services can reduce suicide (Rutz, 2001). Some of the observed decrease in suicide rates in the U.S. population in recent years has been attributed to better treatment of depression with newer antidepressant medications (Gould et al., 2003; Olfson, et al., 2003).

Although they may visit primary care in the weeks or months prior to their suicide, it appears that most people who die by suicide do not openly discuss their intention during medical visits (Isometsa et al., 1995). Thus, it requires skill for the clinician to establish rapport and detect the signs of depression and despair (American Psychiatric Association, 2003). However, some primary care clinicians are not adequately trained and do not feel competent to diagnose and treat suicidal behaviour.

Several forms of psychotherapeutic intervention have been shown to be effective in the treatment of suicidal individuals and these have been modified or adapted for adolescents and youth.

Cognitive Behavioral Therapy (CBT) for Adolescent Depression is an adaptation of conventional cognitive therapy that emphasizes: (1) the use of concrete examples to illustrate points; (2) education about the nature of psychotherapy; (3) active exploration of issues of autonomy and trust; (4) a focus on cognitive distortions and shifts in affect that occur during therapy sessions (in place of detailed logs of experiences at home often used in CBT with adults), and (5) problem-solving, affect-regulation, and social skills (Reinecke, Dottilio & Freeman, 2006). To suit the cognitive style of younger adolescents, therapists summarize session content frequently. Concrete examples linked to personal experience are used as much as possible. The treatment program usually involves 12-16 weekly sessions. CBT has been positively evaluated in several multisite studies (Klein, Jacobs & Reinecke, 2007; Weersing, et al., 2006).

Dialectical Behavior Therapy (DBT) is a form of CBT with five main components: (1) increasing competence through skills training; (2) improving motivation through individual behavioral treatment plans; (3) increasing generalization of skills across contexts by allowing access to therapist outside clinical setting, assigning homework, and including the family in treatment; (4) reinforcing adaptive behaviours by structuring the environment; and (5) supporting the therapist through a team consultation group. DBT has demonstrated efficacy in reducing suicidal behaviour, particularly among individuals with personality disorders, who often have a pattern of making multiple attempts (Stanley et al., 2007). DBT has been specifically adapted for adolescents (Katz, Fotti & Postl, 2009).

3.3.3 Multi-systemic and multi-modal approach to interventions

Most psychiatric interventions for suicide are oriented toward individual treatment. However, child and youth are usually deeply embedded in family systems that play a crucial role in their wellbeing, resilience and recovery. Adolescents are also increasingly tied to peers and school environments. Huey and colleagues (2004) point out that most suicide prevention and intervention programs evaluated to date do not offer ecological interventions and do not involve the multiple layers of a youth's life: school problems, interpersonal conflict, caregiver mental health problems. They conducted a study to determine whether *multisystemic therapy* (MST), an intensive family- and community-based treatment offered for suicidal youth is a safe and effective way of preventing suicide among at risk individuals. A total of 156 youth seen at the emergency services of a university medical center in South Carolina because of suicidal or homicidal ideation/planning, attempted suicide or psychosis participated in the study. Participants were between 10 and 17 years of age. They were randomly assigned to multi-systemic therapy or to hospitalization.

The multi-systemic therapy offered was a family-centered home-based intervention based on Bronfenbrenner's (1979) social-ecological model. Therapists provided daily contact with families when needed. Interventions included empowering caregivers by providing skills to monitor the adolescent and locate appropriate resources. Caregivers were taught how to engage their child in pro-social activities and individualized interventions were given to address barriers to effective parenting. Youth receiving this treatment could be hospitalized in emergency if needed. The hospitalization group received treatment as usual including a formal evaluation, an aftercare plan involving community mental health centers, and follow-up by a multidisciplinary team.

Evaluation took place immediately after consent to participate, at completion of the intervention (approximately 4 months after recruitment) and approximately one year after the end of the treatment. The Brief Symptom Inventory (including Youth Risk Behaviour survey), the CBCL anxiety and depression subscales and the Youth Self-Report of the Hopelessness Scale for children were used to assess mental health and suicidal ideation and attempts.

Results of this study suggest that both MST and hospitalization had significant effects on decreasing suicidal attempts and ideation, as well as depression and anxiety as assessed by both the caregiver and the youth. When comparing youth reports of attempted suicide, MST was significantly more effective than hospitalization but not when comparing caregiver reports of youth's attempted suicide. The caregivers found that they had greater control over the situation when in the MST group; however, one year after the end of the intervention, there was no difference between groups on this indicator. Although MST did not have long-term differential effects on suicidal ideation or depressive affect, patterns of suicidal behaviour differed significantly between groups. MST patients showed more rapid relief of symptoms but over time the hospitalization group caught up to the MST group. The authors concluded that although this program reduces youth-rated

suicidal behaviour, the effects are not significantly different from those obtained in the hospitalization group.

After discharge from the hospital, youth are usually referred for some form of outpatient treatment. The success in engaging youth in treatment depends on the process of referral. Improving follow-up care should help reduce subsequent suicide. One way to improve aftercare is to mobilize a support network for the young person.

King and colleagues (2006) report a study designed to assess the efficacy of a multimodal support program for suicidal adolescents after psychiatric hospitalization. Adolescents were asked to nominate people in their environment who they wished to participate in the program and receive psycho-educational sessions that would provide the adolescents' social support network with the tools and resources necessary to maximize care. This program was designed to supplement the routine care provided by the hospital after discharge. A total of 289 adolescents between the ages of 12 and 17 participated in the study. Adolescents completed the Suicidal Ideation Questionnaire-Junior, the Spectrum of Suicide Behavior Scale, which assesses history of suicidality, the Reynolds Adolescent Depression Scale, which evaluates the severity of internalizing symptoms and the CAFAS which assessed functional impairment related to mental health. Questionnaires were completed at baseline and 6 months after the initial assessment. Adolescents were randomly assigned to treatment as usual or to the intervention group.

Youth in the intervention group were asked to nominate at least two individuals in their immediate environment who they wished to receive training. A total of 433 individuals were nominated and 352 participated in the sessions. Support networks often included a parent or non-parent adult relatives. Peers, neighbors, teachers and school staff were among those nominated by the adolescents. Psycho-educational sessions lasted approximately 1.5-2 hours and included information about the treatment plan, suicide risk factors, ways to communicate with adolescents and available resources. The objective of the session was to help the support group understand the psychiatric disorder of the adolescent and the treatment plan. They were encouraged to keep weekly contact with the adolescent. Both treatment as usual and the intervention group received a treatment plan potentially including psychotherapy, psychoactive medication, partial hospitalization, access to specialized community services and more. Results of an intent-to-treat analysis suggested that the youth-nominated program had no overall effects on suicidal ideation; however, an actually treated analysis showed a significant reduction in suicidal ideation. There were no overall effects on suicide attempts or on levels of depression over the 6-month period. The authors suggest that multiple evidence-based interventions at various levels should overlap to see substantial beneficial effects for suicidal youth.

3.3.4 Analysis

Hospitalization of acutely suicidal youth is an immediate protective intervention but must be followed by effective treatment. Specific forms of psychotherapy, including modified forms of cognitive behavioural therapy and dialectical behaviour therapy have been

shown to reduce suicide ideation and attempts. Treatment of underlying conditions, including depression, anxiety, substance abuse and family conflicts can be expected to reduce subsequent suicide risk. Antidepressant medication has a limited role in the treatment of major depression among adolescents and requires close monitoring. These methods have not been directly evaluated in Aboriginal populations but there is no reason to think they would not have similar efficacy when tailored to the individual's condition and the local social and cultural context.

Aftercare services provide follow-up for those who have made a suicide attempt or show other tendencies for self-injury; many such individuals are at high risk for recurrent episodes of suicidal ideation or behaviour. Potentially useful forms of aftercare include appropriate clinical services to treat psychiatric illness and non-medical approaches to mental health and healing including family and social network intervention, and mentoring by 'big-brothers' or elders.

Two studies that aimed to improve the follow-up care provided for high-risk adolescents showed little beneficial in the intervention group compared to the control groups who received treatment as usual. The authors suggest that initiatives must be multiple and diverse in order to benefit a high-risk population (Huey et al., 2004; King et al., 2006).

In remote communities, arranging contact with mental health professionals may be difficult. However, meaningful follow-up can be done by telephone or over the Internet. Maintaining long-term contact with previously hospitalized patients may be extremely helpful (Motto & Bostrom, 2001). The simple effort to contact someone after the acute crisis or hospitalization is over may send a powerful message of caring and concern. Similar benefits have been noted with crisis hotline follow-ups.

3.4. Postvention

Tertiary prevention usually refers to prevention of recurrence, hence to treatment follow-up of individuals who have made a suicide attempt. In the context of suicide, it also often refers to interventions for individuals who have been bereaved by the death by suicide of a family member or friend. This form of prevention is sometimes called "postvention."

A death by suicide has significant impact on family and friends of the victim, who may have a period of prolonged grief or significant depression for many months after the event. Many authorities advocate the provision of counselling aimed at promoting normal mourning and avoiding pathological grief responses. There is some controversy over the extent to which normal grief and clinical depression can be distinguished (Horwitz & Wakefield, 2007) but generally persistent disabling symptoms are indications for counseling, psychotherapy and, in some instances, medication. The U.S. Centers for Disease Control has provided guidelines for organizing local postvention services (O'Carroll, Mercy & Steward, 1988). This has particular relevance for responding to suicide clusters, which may occur in Aboriginal communities where many youth share similar predicaments and identify with each other (Niezen, 2008).

We found three studies describing postvention programs published since 2003 (Table 6).

Table 6. Postvention Programs

Project (Source)	Target population	Intervention	Outcomes
Public Health Response to cluster suicidal behaviour (Askland et al., 2003)	Students of a junior high-school Maine	Psycho-education sessions, Screening, counselling at risk individuals	N/A
LOSS (Campell et al., 2004)	Individuals who have witnessed a suicidal act	Local Outreach to Suicide Prevention, crisis team composed of paraprofessionals provide on the spot counselling after a suicidal incident	N/A
Group therapy for children bereaved by suicide (Daigle, 2006)	Children 6-12 years of age	Group intervention	Lower scores on various mental health scales Increase in level of anger

3.4.1 Maine Bureau of Health initiative for suicide prevention

In response to a request for help from a junior high school in rural community, the Maine Bureau of Health launched a public health initiative for suicide prevention in 2001 (Askland et al., 2003). In the months preceding the request, 5 students had made suicide attempts and staff feared for the well-being of other students in the school who were considered at risk because of the cluster of suicides they had recently witnessed. The goal of the intervention was to prevent further suicidal behaviours in the school and in the wider community. The targeted population included all students, faculty and staff.

A three-phase program was implemented. All students were encouraged to participate in a 1.5-hour group educational debriefing session. During this session, students were provided information concerning suicide, suicide prevention and various coping strategies. After the session teachers, administrators and students were asked to list individuals they believed were at risk. These individuals were encouraged to participate in Phase 2 of the project, a screening process performed individually with a counsellor. Unstructured interviews were combined with standardized screening tools (the Diagnostic Interview Schedule for Children and subsets of the Drug Use Screening Inventory). During this phase, clinicians developed specific recommendations for each student. In Phase 3, parents of potentially at-risk students were contacted and met to discuss the recommendations. All parents were provided with contacts in case of a crisis and a crisis hotline number.

This intervention was well accepted by students. All students agreed to participate to Phase 1. During this phase, 34% of students were identified as potentially at risk. All students identified as potentially at risk then agreed to meet with a counsellor and to have their parents contacted. There was no outcome evaluation.

3.4.2 The Baton Rouge Crisis Intervention Center

The Baton Rouge Crisis Intervention Center developed an active postvention model called Local Outreach to Suicide Prevention Program (LOSS) (Campbell et al., 2004). The aim of the program is to offer support to survivors of a death by suicide immediately after the event by visiting the area and providing outreach to those who may be affected by the death. The Crisis team comprised paraprofessional volunteers who identified themselves as victims of a suicide and had received specific training to provide support to future victims. Training was provided in part by a Coroner. According to the author, the program has been successful, in part due to its acceptance by the various police departments with which they work. This acceptance would not be possible if the service was not reliable and predictable. LOSS team members must be reachable and present on the scene of the death in a timely manner. Evaluation of the program is being conducted by Louisiana State University. Data suggest that the volunteers demonstrate lower levels of anxiety, depression and bereavement than the comparison group (which was not clearly defined in the article). Active postvention may facilitate appropriate help seeking by survivors but longitudinal research on the impact of postvention is needed (Cerel & Campbell, 2008).

3.4.3 Group Therapy for Children Bereaved by Suicide, Laval

A group therapy intervention was developed by the Laval regional suicide resource program for children aged 6 to 12 bereaved by the suicide of a loved one. The quality of the program was recognized with a prize by the community clinics of Quebec. The program follows a structured format with 12-sessions. The program includes a therapy manual and materials for use in a series of sessions that aim to provide children with a way to articulate and express their feelings associated with the loss. An independent evaluation of the program examined the therapy process for a group of 8 children (Daigle et al., 2006). The program includes a manual therapy and training syllabus. The therapeutic interventions most commonly used with children included: creating an interpersonal links; invoking the circle of human warmth; getting them to communicate; showing awareness of their losses; and encouraging expressions of emotion. The therapeutic process offered the children a sense of security and openness to self and others. Participants showed improvements on multiple measures including the Beck Youth Inventories, the Bar-On Emotional Quotient Inventory, the Snyder Hope Scale and responses of mourning, but the expressions of anger increased. There is no comparison group so these changes may reflect normal processes of resolution. However, the children's responses during the group showed it provided them with a sense of security

and the opportunity to be open to their own feelings as well as to others. Children and parents all expressed satisfaction with the program.

3.4.5 Analysis

Postvention is seen as an essential part of suicide prevention plans or strategies and aims to reduce the risk of ‘copycat’ suicides and lessen the potential mental health consequences of loss for vulnerable family and community members. However, very little information on how to evaluate postvention programs is available. The literature in this field is descriptive in nature and provides poor evaluations of programs. In the case of the four studies published since 2003, only two provide an assessment of satisfaction (Askland, Sonnenfeld, & Crosby, 2003; Daigle, 2006; Jong, 2004). The authors provided a descriptive analysis of the program but no data evaluating the effects of the program on a short- or long-term basis.

Despite the lack of evidence of benefit, the period following a death by suicide provides an opportunity to reach families and individuals at-risk and to promote mental health in general. In small communities and in groups where many people may closely identify with the person who died by suicide, supportive interventions may serve an important preventive function. Communities may be mobilized and come together to plan future mental health promotion programs.

3.5. Means Restriction

There is clear evidence that the elimination of easy access to specific lethal means of suicide such as firearms and poisons can decrease the suicide rate (Daigle, 2005). It might be expected that individuals who are stymied in a suicide attempt by one method would simply find another way; however, because most suicide attempts occur during crises and many are impulsive acts, limiting the availability of means introduces a delay that may allow the person to get past the immediate suicide crisis (Daigle, 2005). Means restriction therefore is recognized as an important aspect of suicide prevention.

Unfortunately, applying means restriction in Aboriginal communities is difficult. Firearms are widely available in most communities because they are essential for hunting. Relatively easy access to firearms in many Aboriginal communities therefore is likely unavoidable, although gun locks could be tried as an intervention. At least one community implemented a central firearms storage program (White & Jodoin, 2003). The Chief and Council passed a Band Council Resolution determining that all firearms had to be placed in the storage facility when not in use for hunting. A 1998 evaluation of the program found that participants of the program felt it benefited the community in terms of safety, reduced break-ins, accidents and shootings (White & Jodoin, 2003).

In many Aboriginal populations, hanging is the most common method of youth suicide. Although break-away rods can be installed in clothes closets, other methods of hanging

are not difficult to find. Means restriction of suicide by hanging generally is possible only in controlled environments like prisons or hospitals (Gunnell et al., 2005).

3.6. Media Regulation

Television, radio, movies, magazines, the Internet and other mass media play an important role in the lives of most contemporary young people. Reports on youth suicide in newspapers or entertainment media have been associated with increased levels of imitative suicidal behaviour among exposed persons (Phillips et al., 1992; Pirkis, 2001; Stack, 2005). The intensity of this ‘copy-cat’ effect may depend on how closely vulnerable individuals identify with the suicides portrayed.

In response to the clear evidence for media effects on suicide, many authorities have urged that the media carefully structure its reporting of suicides. Limiting the degree of coverage of suicides, avoiding romanticizing the action, and presenting alternatives may reduce suicides precipitated by media reporting (Stack, 2003). In support of the value of this type of intervention, a study in Austria found a reduction in suicides following implementation of media guidelines; the reduction was greatest for those regions that most consistently adhered to the guidelines (Niederkrötenhaler & Sonneck, 2007).

In addition to avoiding the transmission of suicide models, the media can also contribute to mental health promotion more positively. This can be done by presenting encouraging and inspiring stories of Aboriginal people, in particular of youth role models who have displayed successful coping in surmounting adversity. Media also provide an important vehicle for creative work by youth and can become tools of individual and collective empowerment and social change.

The U.S. Centers for Disease Control, the World Health Organization, the Canadian Association for Suicide Prevention (CASP) and the Canadian Psychiatric Association each have published guidelines for media reporting of suicide (CASP, 2004; O’Carroll & Potter, 1998; World Health Organization, 2008; Nepon et al., 2009). These include the following principles:

Avoid

- details of the suicide method
- the word “suicide” in the headlines
- photographs of the deceased
- admiration of the deceased
- the idea that suicide is inexplicable
- repetitive or excessive coverage
- front-page coverage
- exciting reporting
- romanticized reasons for the suicide
- approval of the suicide

Convey

- alternatives to suicide (i.e. treatment)
- community resource information for those with suicidal ideation
- examples of a positive outcome of a suicidal crisis (i.e. calling a suicide hotline)
- warning signs of suicidal behaviour
- how to approach a suicidal person

The CPA policy paper recommends (Nepon et al., 2009):

1. improved teaching about suicide reporting in journalism schools;
2. educational efforts directed to the editors of print media and producers of television and radio shows;
3. make available a pocket card summary of guidelines and website information to assist professionals and others in responding appropriately to media inquiries;
4. continuous monitoring of the media by policy makers; and
5. further research on the impact of suicide coverage and suicide method information available on the Internet.

These guidelines and recommendations should be applied to community radio and other local media as well. Implementation must include both education of new and currently active journalists and some process of monitoring media and giving constructive feedback to those who present material in potentially harmful ways.

4. ABORIGINAL SUICIDE PREVENTION

4.1 Promising Practices in Aboriginal Suicide Prevention

There are still very few evaluation studies that demonstrate that suicide prevention programs actually works, and even fewer that are specific to Aboriginal communities. Still, there is broad consensus that certain specific types of interventions are likely to be effective. There is evidence for benefit from programs or interventions that: (1) restrict access to common means of suicide; (2) provide school-based programs to teach coping skills to students, and instruct students and teachers in how to recognize individuals at risk and refer them to counselling or mental health services; (3) train youth peer counsellors or ‘natural helpers’; (4) train other individuals with whom youth come into regular contact (teachers, nurses, primary care providers, clergy, parents) as gatekeepers who can recognize and refer youth at risk; (5) insure ready access to a range of mental health services including counseling and psychiatry; (6) mobilize the community to come together to develop suicide prevention programs and a crisis intervention team; (7) provide culturally appropriate support for families to promote positive parenting from early childhood through adolescence; (8) develop family and community activities that bring youth and elders together to share cultural knowledge, values and perspectives; and (9) insure that mass media portray suicide and other community problems in appropriate ways.

Translating these general strategies into programs tailored to the realities of Aboriginal communities, requires attention to several key issues:

- 1) Focusing on family and community-based interventions that strengthen the solidarity and collective well-being of the contexts in which youth live.
- 2) Adapting any existing suicide prevention training to Aboriginal school settings and other venues to reach youth who are not in school (and who may represent a particularly vulnerable segment of the population).
- 3) Adapting mental health service delivery to the unique needs and circumstances of remote regions. This requires the use of local resources (both professional and nonprofessional) as well as mobile teams and distance support through teleconferencing and related technologies.
- 4) Addressing the problem of jurisdictional conflicts and gaps in provision of mental health services and continuity of care for Aboriginal people both on and off reserve (Macdonald, 2008).
- 5) Dealing with the problem of confidentiality in rural and remote communities where helpers and affected individuals are often related, or live together in constant close proximity.

- 6) Developing ways to support helpers in rural and remote communities who experience exceptional challenges, due to the constant need for their services and their close relationships with the people that they serve.

Most of these issues require adapting programs and policies to the unique needs and circumstances facing aboriginal communities. In the next section, we specifically explore and discuss what kind of cultural adaptations are necessary to enhance suicide prevention among aboriginals.

While there is a lack of outcome and evaluation research in the field of youth suicide prevention, the problem is even more severe with regard to Aboriginal communities. Although many Aboriginal communities have adapted existing programs or developed their own programs, very little information is available on the effectiveness of these programs. However, many reports have been written to help guide the creation of programs.

This section reviews projects that have been elaborated by or for Aboriginal people in Canada, United States and Australia. Although these projects are rarely formally evaluated, this review provides information about what strategies have been adopted by communities, what groups are targeted by the initiatives, and how strategies are culturally adapted. The aims are to identify promising directions, to elaborate on the key elements for effective suicide prevention, and to clarify the process of cultural adaptation of programs. About 30 programs are described in Appendix A and 11 are singled out as promising practices in Appendix B.

4.2 Cultural Adaptation of Suicide Prevention Programs

The reports on most of these programs emphasize the importance of building on notions of empowerment, resilience and coping. Because suicide affects young people and they comprise a large segment of the community, youth must take an active role in any intervention program.

The reports also emphasize the cultural adaptation of programs to insure they are consonant with Aboriginal values and perspectives. The reports reviewed indicate that cultural adaptation may take different forms in different contexts. Common factors shared among programs include the following:

- including members of the community in the program planning and development;
- borrowing materials and approaches developed by and for another indigenous group;
- translating existing materials and practices into local languages and culturally meaningful terminology and examples;
- redesigning interventions to include traditional methods of suicide prevention, coping and resilience; and
- developing entirely new approaches based on local knowledge and practices.

Many discussions of cultural adaptation and appropriate of programs emphasize that culture itself can be a major vehicle for strengthening youth identity, sense of belonging or connectedness to the community, and both individual and collective well-being (Masecar, 2007).

In Canada, as well as Australia and New Zealand, Aboriginal suicide prevention initiatives have favoured public health, community-based approaches building on concepts of resiliency and empowerment. Unfortunately there is little available research on these strategies. School-based programs are better evaluated in general but have not been as widely used and evaluated in Aboriginal communities.

Much work on cultural adaptation has focused on the cultural competence of practitioners. Mental health workers require cultural training and supervision. However, cultural adaptation can also occur at the level of whole organizations. NAHO, the Mental Health Commission of Canada and other groups have advocated using the concept of 'cultural safety', developed by Maori nursing researchers, to focus on the issues of power differences and vulnerability in the clinical encounter (Smye & Browne, 2002). Culturally safe organizations, professionals, policies and practices insure that the people they serve

Cultural adaptation also applies to research and screening tools. There is a need for culturally sensitive suicide risk assessment tools in Aboriginal populations (MacNeil & Guilmette, 2004). The technical methods of developing culturally response scales and tools are well-established. Developing such tools requires a systematic research process that begins with partnership with the involved communities. Local idioms of distress and patterns of symptoms as well as sources of resilience must be identified through qualitative research. These can then be incorporated in specific instruments that are tested and validated against clinical and community measures of outcome.

4.3 Inuit

The Inuit population in Canada lives in both remote northern communities and urban settings. Of the 55,000 people who identify themselves as Inuit, half live in Nunavut; 20% live in Québec; 10% in Newfoundland/Labrador and 9% in the Northwest territories. Most Inuit communities are accessible only by plane or boat. Suicide among Inuit youth are among the highest in the world, with a rate of 11 times the national average.⁸

Inuit communities vary in size ranging from 100 to 3000 individuals. Iqualuit, the capital of Nunavut, with a population of over 6000, is the largest Inuit community. This geographic distribution is an important challenge for providing appropriate health care. Resources, both financial and professional, are often scarce in Inuit communities. Within

⁸ <http://www.hc-sc.gc.ca/fniah-spnia/promotion/suicide/index-eng.php>

urban settings barriers such as language, transportation, poverty and cultural differences also may impede access to appropriate mental health services.

Suicide prevention strategies must reflect the different geographic settings, language and culture of Inuit to ensure efficacy and sustainability. Notions of health and well being depend on cultural values and ways of life. For Inuit, health and well-being are closely tied to notions of family and kinship (Kral, 2003; 2009; Kral & Idlout, 2008). Traditional Inuit society was essentially synonymous with the extended family and good communication within the family was essential for survival and for quality of life (Ajunginiq Centre, 2006).

4.3.1 Frameworks and Initiatives

The National Inuit Youth Suicide Prevention Framework (Stevenson & Ellsworth, n.d.), published in 2004, is based on such culturally grounded knowledge. This framework makes various suggestions regarding culturally appropriate interventions in this group. These include:

- 1) Suicide prevention training that addresses emotional components of at-risk youth, and addresses issues of grieving loved ones;
- 2) Strengthening cultural knowledge and identity through language teaching, cultural heritage programs, opportunities to enact traditional values of work and caring for each other;
- 3) Support for parenting and family life;
- 4) The use of the arts as modes of expression and creative transformation;
- 5) The use of popular music as a vehicle for raising awareness and changing attitudes towards the issue of suicide.

There have been a number of other initiatives in the north to address suicide. There is no systematic evaluation to demonstrate their impact, but there is a sense that they have had significant effects in increasing awareness, mobilizing the community, and providing positive models for youth.

A review of the initiatives conducted in Nunavut from 1994 to 2009 found that the following training workshops and programs have been provided:

1. Applied Suicide Intervention Skills Training (ASIST), LivingWorks
2. ASIST at the Cambridge Bay Wellness Centre
3. ASIST training for trainers
4. Canadian Association for Suicide Prevention (CASP) National Conferences
5. Training for Youth Educators, White Stone
6. 'We Have Something Important to Discuss,' Dreamcatcher North of 60 Tour
7. Nunavut Conference for Caregivers: Creating a Safe House
8. Nunavut Kamatsiaqtut Help Line volunteer training
9. Peer Counseling, Government of Nunavut suicide prevention workshops

10. Government of Nunavut multi-media suicide prevention campaign
11. Government of Nunavut Information Session on Suicide Intervention and Prevention
12. Northwest Territories Suicide Prevention Training Program
13. Government of Nunavut Department of Education initiatives
14. Training for teachers at Inuksuk High School
15. 'It's Cool to be Alive in Nunavut'
16. Nunavut Arctic College Nursing Program
17. Suicide prevention program, Young Offenders Facility
18. National Aboriginal Youth Suicide Prevention Strategy
19. Amauliklut
20. Baker Lake Suicide Prevention workshops
21. Programs offered by the Ilisaqsivik Family Resource Centre

Most of these programs have not been subject to formal outcome evaluations that would clarify which are most effective and appropriate to implement in other settings.

The Nunavut Department of Executive and Intergovernmental Affairs (EIA) hosted a circumpolar conference on suicide prevention best practices in 2003. Salient points from the conference included the need to:

- 1) have all mental health material in Inuktitut and English;
- 2) have documentation and training programs that build on existing competences and skills, and not simply on deficits;
- 3) use a team approach to share knowledge;
- 4) use technology as a tool for dissemination and intervention.

In a report for the Government of Nunavut Task Force on Mental Health, 48 mental health service providers from various communities across Nunavut completed a survey, the aim of which was to determine the "breadth and depth of the information gaps related to mental health and suicide prevention information as identified by service providers in Nunavut" (Zamparo, et al., 2005). Six broad themes were identified in the survey as domains where action could improve the situation vis-à-vis suicide prevention:

- 1) language revitalization and linguistically appropriate services
- 2) education and community capacity building regarding issues around suicide
- 3) better teamwork and coordination of services
- 4) increased resources for suicide prevention
- 5) better technology for health professionals
- 6) intellectual isolation, particularly, the sense of being cut off from access to recent information.

Respondents to the survey were (mostly non-Inuit) mental health service providers who had lived in Nunavut an average of 4.6 years; 75% of respondents were not from Nunavut. For those who were not from the region, lack of knowledge and preparation with regard to Inuit ways of life was recognized as an impediment to providing effective services. The three main health concerns they identified were addictions, suicide and

depression. Health workers participating in the survey suggested numerous sites for intervention to improve mental health and well-being which included: 1) increasing education; 2) increasing availability of counseling; 3) increasing recreation, leisure, employment; 4) increasing the availability of trained mental health workers; and 5) increasing self-esteem. Specific programs that they thought would be helpful included: 1) suicide prevention programs; 2) crisis response teams; 3) addiction treatment centres; 4) self-help and support groups; 5) prevention and early intervention for mental illnesses; 6) anger management; 7) healing centres; and 8) parenting programs. It can be seen from these lists of actual and desirable programs that non-medical, population-level interventions are just as favoured as specifically 'medical' interventions. In other words, suicide prevention is considered to be enhanced by factors such as better inter-generational cohesion and increased leisure opportunities, as much as by specific 'mental health' programs. Specific 'mental health' interventions must thus build on endogenous community strengths in order to maximize resiliency.

On a primary prevention level, events which bring communities together and celebrate life have found success. Such events include marking specific days as devoted to the celebration of life. These include 'Embrace Life Day' in Nunavut, "Celebrate Life Day" in Nunatsiavut, and "Live Life Day" in Nunavik. Other activities include the Qajaq project in Nunavik in which a group of individuals kayak to various communities to raise awareness about suicide prevention. Other 'camps' have been organized to try and promote life and prevent suicide among Inuit. These include a 'Celebration of Life' symposium held in Labrador, and the Pijunnaqsiniq Camp held in the Kivalliq region of Nunavut.

School-based programs may be effective as a means of prevention for Inuit youth. However, drop-out rates are high and absenteeism is frequent in many Inuit communities making it difficult to reach the most vulnerable individuals solely through such programs. Moreover, due to high turn-over among teachers within many Inuit communities it may be difficult to train teachers to provide such programs. A more sustainable option would be to train individuals within the community. If implemented, school-based programs should be adapted with the help of Inuit community members. Past reports suggest that programs must include a space for expressing negative emotions (Ajunnginiq Centre, 2006; Stevenson & Ellsworth, nd) and must take into consideration important themes such as family and kinship and country food (Kral, 2003; 2009).

Gatekeeper training programs for peers have been used in the past. Such programs provide a sustainable option. It is important however that peers who receive such training have appropriate and available resources when dealing with suicidal peers. Prevention must include intervention resources including mental health workers. Telepsychiatry may be an effective way to provide some medical and psychosocial help, with supervision and support for workers and consultation for some patients (Jong, 2004). Ideally, telepsychiatry should use a consultant who has visited and is familiar with the community.

Boredom, especially among teens, is a major issue in Inuit communities and may signal distress or indirectly contribute to suicide ideation or attempts. Mental health promotion programs must therefore extend beyond school hours and offer enjoyable and safe after school and evening activities to youth. Such activities should be organized and run by full-time and relatively permanent staff in whom youth can trust.

Postvention strategies must be elaborated to reduce the risk of suicide clusters, which is especially problematic in small communities. For such strategies to be well implanted and sustainable, open communication must occur between schools, nursing stations, governmental organisations and community members must be full partners in any initiatives. The segmentation of care, with separate silos for medical, social services and educational services, must be bridged to allow collaboration, coordination and support among the key resource people and organizations in Aboriginal communities.

4.3.2 Videoconferencing consultations, Nain, Labrador

Providing services to remote communities is a challenge to any suicide prevention approach that aims to include professional mental health services as one component. A pilot study using videoconference consultations to manage suicidal behaviour was conducted in Nain, an isolated community in northern Labrador with a population of 1150, most of whom are Inuit (Jong, 2004). The objective was to evaluate the benefits and cost-effectiveness of telehealth services for people living in circumpolar regions. In this community, physicians are flown-in on a regular basis for consultations. When a physician is not available in the community, referrals for suicide assessment are made via videoconferencing. The nurse or counsellor based in the community participate in the assessment.

The costs of providing the videoconference service were compared to the costs associated with flying the at-risk individual to the nearest health facility with an RCMP escort. The study also assessed the satisfaction of patients, nurses, mental health workers, physicians with the services. A total of 71 patients were seen by videoconferencing in 2003, none of whom died by suicide. The cost analysis showed that the government saved \$104,088 using the videoconferencing. Patient satisfaction was high; however, participants mentioned that they appreciated being linked to a health worker for follow-up and did not mention their satisfaction with the actual videoconference consultation. Moreover, no information was available with regard to the community satisfaction with this service. The lack of wider evaluation in the community is important because it may be that some individuals at risk did not use the service because of a lack of comfort with this method of consultation. More information is needed to better understand the benefits and limitations of this type of service, which could play an important role in support to small remote communities.

4.3.3 Summary and Analysis

A recent report prepared by a working group in Nunavut with representatives from the Government of Nunavut, Nunavut Tunngavik Inc. and Isaksimagit Inuusirmi Katujjiqatigiit (Embrace Life Council) outlined an effective suicide prevention strategy for the region based on local knowledge and international best practices.⁹ The review makes the following broad observations:

- Biological factors seem to play a similar role in suicidal behaviour among Nunavummiut as they do for all human societies. Thus, mental health services provided to Nunavummiut should be of the same quality and quantity as those available to Canadians living in the south.
- The increase in suicide seen in recent decades is likely to be due to “historical trauma” (Yellow Horse Brave Heart, 1999), with associated high rates of emotional, physical and sexual abuse, violence, and substance abuse. Thus, the social determinants of suicidal behaviour must be identified and addressed.
- Difficult life experiences can provoke the onset of mental disorders (including substance abuse), so it can be assumed that there are high rates of mental disorders among Nunavummiut. Thus, there is a need to develop much stronger counselling and mental health services in Nunavut.

The 2009 Working Group discussion paper recommends the following more specific actions toward developing a suicide prevention strategy for Nunavut:

1. the territorial government should be involved in all stages of the strategy development and delivery;
2. groups that are at the highest risk to develop a suicidal behaviour should be trained in coping with unfavourable and negative life events and emotions;
3. local mental health specialists should be trained to improve delivery of services and better identify those at suicidal risk;
4. more attention should be given to counselling and mental health services;
5. community-based groups should receive greater support and encouraged in their initiatives;
6. more information and data regarding suicide rates in Nunavut should be provided to the local population;
7. there is a need for further capacity building and promotion of resilience.

In summary, the very high rates of suicide among youth in many Inuit communities have met with many attempts at intervention, but no broad policy or sustained initiative.

⁹ Working Group for a Suicide Prevention Strategy for Nunavut (2009). *Qaujijausimajuni Tunngaviqa. Using knowledge and experience as a foundation for action: A discussion paper on suicide prevention in Nunavut* Iqaluit: Embrace Life Council.

Interventions occur in a context where basic mental health services are still limited and difficult to obtain. Developing such services and insuring that crisis intervention and support are available in a timely way will be essential to reducing deaths by suicide. However, a focus on mental problems and services alone is inadequate to address the broader issues faced by youth. Community based interventions grounded in Inuit culture that pay close attention to social processes within families and communities are needed. Such holistic approaches may include conventional and commonly used mental health interventions (e.g. crisis lines and crisis teams), but these will be tailored to the particulars of the local culture. They are also based on a broader approach that recognizes that social and cultural factors outside conventional health care determine overall health and well-being.

4.4 First Nations

Rates of suicide vary widely across First Nations communities both nationally and regionally (Kirmayer et al., 2007). Faced with high rates, some communities, bands or nations have developed innovative suicide prevention programs.

The Royal Commission on Aboriginal Peoples report on suicide (1995) provided case studies of five suicide prevention programs developed in different First Nations communities: (1) the Ngwaagan Gamig Recovery Centre for alcohol/drug addiction and Nadmadwin Mental Health Clinic, Wikwemikong, Ontario; (2) the 1993 Big Cove gathering and community sharing circle, New Brunswick; (3) a suicide prevention training program for community caregivers, Northwest Territories; (4) the Canim Lake family violence program, British Columbia; and (5) the Wakayos Child Care Education Centre, Meadow Lake, Saskatchewan. These programs have not been systematically evaluated but they were viewed as culturally appropriate and well accepted by the communities. The following four factors were shared across the program, and appear to be important ingredients for community acceptability and engagement: (i) the activities were community-initiated (some in conjunction with band councils or regional Aboriginal organizations) and most involved locally controlled partnerships with external groups; (ii) they drew from traditional knowledge and wisdom of elders; (iii) they involved consultation with the community, and (iv) they were broad in focus. Below, we present descriptions of some more recent promising programs.

4.4.1 The American Indian Life Skills Development Curriculum (AILSDC)

The American Indian Life Skills Development Curriculum (AILSDC) (based on the Zuni Life Skills Development program) is a school-based suicide prevention curriculum designed to reduce suicide risk and improve protective factors among American Indian adolescents 14 to 19 years old. The curriculum aims to reduce suicide risk and reinforce protective factors and covers topics including: building self-esteem; identifying emotions and stress; increasing communication and problem-solving skills; recognizing and eliminating self-destructive behavior; learning about suicide; role-playing around suicide prevention; and setting personal and community goals.

The curriculum typically is delivered over 30 weeks during the school year, with students participating in sessions 3 times per week. The teaching is interactive and uses situations and examples relevant to American Indian adolescent everyday life, such as dating, rejection, divorce, separation, unemployment, and problems with health and with the law. Most sessions include role-playing scenarios that allow students to practice problem solving and apply the knowledge they have learned. Sessions are provided by teachers trained in the program working with local community resource persons and representatives of local social services agencies. This team-teaching approach aims to insure that the sessions are culturally relevant even if the teachers are not Native American. For example, the local community resource people can speak with students in their own language to explain key concepts and relate exercises to traditional and contemporary community experiences and values.

The program was originally developed for the people of the Zuni Pueblo in New Mexico and was tested and evaluated with that population. Students receiving the curriculum demonstrated better suicide-awareness skills compared to those who did not receive the program. The program has been adapted and widely used in many other American Indian communities with culture-specific modifications. For example, the Omaha Nation developed "Project Hope" directed to youth and young adults aged 10-24 based on this curriculum.

The American Indian Life Skills Development Curriculum was adopted by SAMHSA (a U.S government agency devoted to improving mental health services) as a "model" evidence-based program on the strength of the original quasi-experimental evaluation. However, LaFromboise (2009) recently completed an RCT of this program in communities of the northern Plains that failed to replicate the original positive results. Moreover, the comparison intervention, a non-Native program called "Reconnecting Youth," did show evidence of efficacy with the Native children in her sample. LaFromboise reported on this at the January 2009 National Multicultural Conference & Summit and noted that she planned to conduct another systematic evaluation study in the face of this surprising finding (Dr. J. Gone, *personal communication*, April 5, 2009).

4.4.2 Zippy and Nokitan II, Quebec

Two programs developed in Quebec, Zippy in the Algonquin community of Kitigan Zibi (Denoncourt & Laliberté, 2007) and Nokitan II in the Attikamekw community of Wemotaci (Rousselot, 2009) have similar goals to the American Indian Life Skills Curriculum but use different modalities and materials in their curriculum.

Zippy is based on a generic program being delivered to thousands of non-Aboriginal students in Quebec. It is addressed to children aged 5 to 9 and is tailored to the specifics of the Algonquin culture. It involves a 24-week program with modules addressing themes including: emotions, coping, and making or breaking relationships. Cultural adaptations include a storybook based on Algonquin traditions, puppets, multi-media materials, local guests, an Algonquin version of the "zippy" song, and a "Zippy Pow-wow."

From pre-school to grade 4, Nokitan II includes discussions and art creation stimulated by myths and legends written and adapted by a group of Aboriginal women working in the field of education. After grade 4, the program uses a method based on the philosophy for children approach developed at Laval University.

Both Nokitan II and Zippy have a strong empowerment orientation. For both programs, the local teachers or educational workers who lead the sessions must go through a training process, in which they face some of their own personal, family and communal issues that are evoked by the material. The programs create a sense of group solidarity among the educators who embrace the idea that part of their task is to enhance the well-being of their students. The inclusion of traditional cultural material, sometimes in the heritage language, reinforces collective pride. Zippy is currently being evaluated in Kitigan Zibi but has been validated on large samples of European and Quebec children (M. Tousignant, *personal communication*, April 10, 2009).

4.4.3 Aboriginal Youth Suicide Prevention Strategy of Alberta

The Aboriginal Youth Suicide Prevention Strategy of Alberta (Aboriginal Youth Suicide Prevention Working Committee, 2003) supports community-based programs that encourage creative activities and bring youth and elders together to strengthen intergenerational links. These programs attempt to instill optimism, and increase attachment to Aboriginal culture and the community. This province-wide strategy, which included 17 groups, provides a rare example of systematic evaluation. Although there was no pre-post comparison, there was evidence from surveys that youth increased their sense of well-being and of empowerment after participating in the program. However, other signs of social anomy like alcohol and drugs consumption and violence did not improve. A long-term evaluation is needed to assess the community outcomes.

4.4.4 First Nations Action and Support Team, British Columbia

The First Nations Action and Support Team (FAST) was developed in response to a series of suicide attempts (seven suicide attempts during one week) in Northern British Columbia (Hazelton). The ultimate aim of FAST is to diminish the high rate of suicide behaviour and attempts in these communities. It involves a partnership between four First Nations in northern British Columbia, the Wet'suwet'en, Gitksan, Tsimshian and Nisga'a. It aims to create and train a team of service providers made up of members from each of the four nations. Two intensive, five-day training sessions were held for the team members in October and November 2007. FAST has representatives from 15 Aboriginal communities in northern British Columbia. FAST members are trained to become trainers and to continue receiving further training; the program is committed to lifelong learning. The service providers offer short- and long-term services that complement existing resources. The aim is to enmesh the new services with existing services. As a part of the program's activities, teams of two to four trainers visit regions that have recently

registered high suicide rates to work with the community in trying to prevent further suicides. As a result, every community with high rates of suicide will receive education and advice on how to act during crisis, at both the community and individual level.

4.4.5 Two-eyed seeing among the Mi'kmaq, Cape Breton

A health promotion and suicide prevention program using puppetry was developed in collaboration with a Mi'kmaq community on Cape Breton Island, Nova Scotia (Jacono & Jacono, 2008). The aim was to demonstrate the pertinence of combining both western and Aboriginal knowledge, an approach they termed *two-eyed seeing*, to promote mental health and reduce suicidality in youth living on reserves. The project targeted both elementary school children and Aboriginal youth enrolled in an Integrative science Program at Cape Breton University. Students from the science program were asked to construct puppets from natural products collected from the forest and to script plays representing Mi'kmaq legends. Throughout this process youth were accompanied by elders who promoted respect for the land and shared traditional knowledge. Students then performed the plays interactively with elementary school students. The program was based on theories of child and adolescent development of identity and self-esteem. Collective esteem and identity have been undermined in Mi'kmaq communities due to a communal history of forced assimilation. This project was designed to counteract some of these negative effects on individual and collective identity. By bringing elders, youth and children together the program promotes cultural continuity and supports the development of cultural identity among youth. This, in turn, is expected to contribute to their personal sense of identity and self-esteem. Through exposure to positive models, adolescents are encouraged to redirect their lives. The project was not formally evaluated but was well-received (John Jacono, *personal communication*, April 13, 2009).

4.5 Métis

Unlike rates among other Aboriginal peoples, suicide rates among the Meti have not been the focus of epidemiological study. Anecdotal evidence suggests that rates are higher than the general population, though this is in need of confirmation. As of April 2009, the NAHO Métis Centre indicated that there is no focused suicide prevention strategy or initiative specifically for Métis. The prevention strategies are embedded within the overall NAHO National Strategy, which does not distinguish First Nations and Métis.

The Métis Settlements General Council (Alberta Métis) has been working on a Tri-Settlement Youth Suicide Prevention Initiative (Peavine, Gift Lake and East Prairie) for the past two year. The initiative, in consultation with local adults, elders, and youth, has developed a "Promise Bracelet" Campaign aimed at providing a support network for youth. The program uses the Métis flag (a horizontal infinity symbol) to instil courage and perseverance in youth. The infinity symbol represents the joined circles of the First Nation and European heritage that form Métis identities and the everlasting presence of the Métis Nation. The Promise Bracelet campaign asks community members, especially

youth, to offer the Promise Bracelet as a gift to friends; in return, the recipient promises to talk to someone whenever they are in distress. The Promise Bracelet is a constant reminder of the promise you have made to your friend. An explanation card is attached to the bracelet with numbers and support networks the person can call. The Project coordinator, Dolores Flett, says that the Promise Bracelet campaign is the most successful component of the project. Both youth and elders have been engaged in sharing and building the Promise Bracelet support network. This approach has not received systematic evaluation.

The Government of Alberta has developed a cross-ministry initiative, the Aboriginal Youth & Communities Empowerment Strategy (AYCES; formerly known as the Aboriginal Youth Suicide Prevention Strategy). The AYCES project plans to release a printed document entitled “Honouring Life: Aboriginal Youth & Community Empowerment Strategy,” in early May 2009, which will have a Métis component. At the time of this writing, further details of this initiative were not available.

5. SUICIDE PREVENTION STRATEGIES

This section provides a summary and analysis of national and regional suicide prevention strategies that address Aboriginal populations.

5.1 Comparing National Strategies and Practices in Suicide Prevention

Although there are many commonalities, the national programs reviewed take somewhat different approaches to the implementation of suicide prevention programs. To some extent, this reflects differences in demography, geography, history and politics. The position of indigenous peoples also varies: in Canada, Australia and the U.S., indigenous peoples constitute relatively small, diverse minorities living in many different geographic regions and settings, from urban to rural and extremely remote communities. In New Zealand, they constitute a single people and a much larger minority (about 15%), and the country as a whole has come to recognize itself as officially bilingual and bicultural. In Greenland, Inuit are the overwhelming majority. Like Canada, both Australia and the U.S. have many diverse indigenous groups who constitute a smaller proportion of the general population but who are located both in rural and remote communities and in urban centres.

In terms of applying lessons learned from approaches developed in other countries, those developed in the United States and Australia are likely to be most immediately applicable in Canada. This is because these countries have culturally diverse groups of Indigenous people who live in rural and remote regions with poor access to conventional mental health services. Nevertheless, suicide prevention interventions in New Zealand remain a useful source of ideas, since they have developed effective programs for Maori youth that appear to have good outcomes.

To compare the best practices in these countries and clarify which might have a better fit with the situation of Aboriginal youth in Canada, we must consider all the levels of intervention. These levels include (i) the general mental health policy developed for the whole country, (ii) suicide prevention strategies and programs for the general population as well as those specific to the Aboriginal population; and (iii) specific programs that have been implemented and evaluated. It is important to recognize that each level has specific areas of influence its impact can be gauged through the use of specific measures. For example, some initiatives that are possible only with a state, province or territory-wide mandate, like promoting new laws that restrict access to means of self-harm. Other initiatives can be implemented by non-governmental organizations, regional or local suicide prevention centers, or communities.

A national *mental health policy* describes broadly all the interventions that should be done in order to achieve the best outcomes in terms of health and wellness in the general population. It describes the modalities needed for the whole country to have a well-

organized mental health system that will be able to detect and to intervene early in illness, to promote recovery, and to ensure that everyone who develops mental health problems or mental illness, has the same access to effective and appropriate services and supports to enable them to fully participate in community life. This type of document describes and supports broad efforts to prevent mental illness. National policies are broadly similar, differing mainly in their explicit mention of particular issues or problems, and the use of specific language or metaphors popular at the time of their framing. In addition to addressing issues of prevention, health promotion and equity in access to services, these policies aim to promote resilience and destigmatization, which are fundamental to recovery from mental illness. Canada currently has no national policy, but the Mental Health Commission of Canada is developing a framework for a mental health strategy that will emphasize the concepts of recovery, diversity and cultural safety.

A suicide prevention *strategy* more specifically describes what should be done to prevent suicide and at what jurisdictional level (e.g. state, provincial, territorial, regional). As the countries to be compared differ in their political and organizational structure, the level of strategy implementation is also different. When there is a National Strategy, it is the basic document that highlights all the interventions that need to be done for the country as a whole. There are also other documents, like intervention plans, for other geographic or political levels of organization (e.g., states, provinces, counties, or territories) that highlight the interventions that are specific for one region or another, taking into consideration such factors as the cultural context, accessibility to services, funding opportunities and other. These regional documents are usually linked to elements of the National Strategy.

At the national strategy level, all of the countries have targeted 6 main components to suicide prevention¹⁰:

- Increasing public awareness
- Media education
- Access to services
- Community development
- Means restriction
- Research and evaluation

At present, Canada possesses neither broadly-based national mental health framework, nor a specific national suicide prevention strategy.¹¹ At the provincial level, only Quebec and New Brunswick have finalized some form of suicide prevention strategy.

Table 7 compares some of the major features of the national strategies.

¹⁰ Centre for Suicide Prevention, “A Summary of National, State and Provincial Strategies for the Prevention of Suicide”, <http://www.suicideinfo.ca/csp/go.aspx?tabid=160>

¹¹ Canada Needs a National Strategy for Suicide Prevention, <http://www.suicideinfo.ca/csp/assets/ExcerptsStandingCommittee.pdf>

Table 7. Comparison of National Suicide Prevention Strategies

Country	Year	Emphasis	Aboriginal Focus
Australia	2000	Community participation - risk factors, - resilience - Not do harm - Provide sustainable programs	Mentioned as partners. Culture as important factor in suicide prevention
United States	2001	Public Health approach - Providing effective care - Increase awareness - Develop efficient and sustainable programs	Little explicit mention
Greenland	2004	Rooted in the historical, social and cultural context in which suicide occurs - Change public attitudes - general wellbeing (coping skills) - access to care	Little explicit mention (but most of population is Indigenous) Culture seen as important factor in suicide prevention
Canada	2004	Public Health approach - Providing effective care - Increase awareness - address stigma - Develop efficient and sustainable programs	Create specific programs for Inuit, Aboriginal and Métis. Principal: Be respectful of community and culture-based knowledge.
New Zealand	2006	Focus on social determinants -Providing safe and effective care -inequalities and -multisectoral approach	Emphasized

5.2 Australia

Like Canada, suicide-rates in Australia are much higher among Aboriginal peoples than non-aboriginals. Suicide data on Aboriginal and Torres Strait Islander communities are somewhat unreliable, but fairly accurate estimates suggest that the overall suicide rate may be 40 per cent higher in aboriginals than in the non-indigenous population (Harrison & Moller 1994, cited in Commonwealth Department of Health and Aged Care, 2000). Epidemiological evidence also suggested increasing suicide rates among young persons in Australia, especially aboriginals. These rates appear consistent with those in similar nations Anglophone countries with settler histories, indigenous peoples, and multicultural populations, such as Canada, New Zealand and the United States (Cantor et al. 1998; La Vecchia et al. 1994); The development of suicide prevention policy in Australia was spurred by national recognition of the scope of this problem, and the consideration of international recommendations for addressing suicide.

These international recommendations stem from the UN (1996) and WHO (1990). In the 1990s, both these organizations called on countries to develop national strategies to address mental health problems, including suicide. The United Nations delineated the essential components for an effective national suicide prevention strategy, namely:

- development, publication and implementation support for a national plan and conceptual framework;
- relevant data collection and research;
- suicide prevention information and education;
- early identification, assessment, treatment and referral for professional care of individuals at risk;
- increased public awareness of the importance of mental wellbeing, suicidal behaviour, the consequences of stress and effective crisis management;
- provision of comprehensive specialist supportive and rehabilitation services;
- reduction in access to lethal methods of suicide;
- development of national and regional structures and supports for program implementation, review and evaluation¹²

Australia was one of a small number of countries (including Finland, New Zealand, Norway and Sweden) that responded to these calls to develop a national strategy on suicide prevention, building on extant work on the topic of suicide in Australia discussed below.

5.2.1. The First National Mental Health Strategy (1992)

A series of national reports marshaled evidence for the need for a comprehensive national policy on suicide prevention aiming mostly (but not exclusively) at young people. These included the *Mason Report*, a study of domestic and international youth suicide prevention strategies. The Mason Report (1990) provided a strong rationale for the need for the Australian government to develop a thorough policy framework addressing the issue of youth suicide. Additionally, several state and territory governments had initiated coordinated responses to suicide prevention. These were organized as multisectorial working groups or advisory committees that aimed to collect evidence on the epidemiology of suicide in their jurisdictions. They were the first to identify appropriate programs and activities on suicide prevention. Some of these groups conducted community consultations when developing their recommendations.

In 1992, the National Health and Medical Research Council set up a Working Party that included several prominent researchers in the field. Its role was to review existing data and develop a policy statement on suicide. Their report was intended to constitute the basis of the future suicide prevention strategy (Lawrence, 1995). At around the same time, the Human Rights and Equal Opportunity Commission produced a *Report of the*

¹² Evaluation of the National Youth Suicide Prevention Strategy:
<http://www.aifs.gov.au/institute/pubs/ysp/evalrep1.pdf>, page 35)

National Inquiry into the Human Rights of People with Mental Illness (Burdekin, 1993). All these reports put mental health and suicide on the policy agenda, ensuring high visibility and public prominence to these matters.

Many of the recommendations mentioned in these reports fed into Australia's first general National Mental Health Strategy, initiated in 1992 in response to the need for major reforms in the way that mental health services were provided. The Health Ministry developed a comprehensive and detailed policy framework. The funding provided to assist the implementations of this strategy was \$250 million (AUS) over the 5-year period from 1993 to 1998. \$190 million of this was redirected to states and territories for service reform.

5.2.2 National Youth Suicide Prevention Strategy (1995)

A major reform included under this strategy was The National Youth Suicide Prevention Strategy, introduced in 1995. This broadened considerably the scope of the 1992 plan. It aimed not only to reduce deaths by suicide, but also the prevalence of suicide attempts, suicidal behaviour and ideation. The strategy targeted not only young people at highest risk, but also those exposed to factors that might trigger suicidal behaviour in the future. It also targeted the general population. At the population level, it was concerned not only with treatment, support and postvention, but also early intervention, primary intervention and health promotion, including social wellbeing and community connectedness. It brought substantial changes in service provision, linking mental health services to other sectors, supporting consumer and carer rights and participation. A strength of this strategy was that it attempted to address each of the key components outlined by the United Nations (1996) previously mentioned.¹³

Under this Strategy a variety of promising primary prevention and early intervention programs were developed or elaborated. A range of interventions and trainings in suicide prevention were provided to a large number of professionals. What was missing was the lack of measurable objectives or concrete evaluation of efficacy.

5.2.3 The Second National Mental Health Strategy (1998)

The Second National Mental Health Plan in 1998, aimed to broaden the agenda of mental health reform, by promoting: prevention and early intervention; partnerships with other health services, non-government organizations and consumers; further reform in the private sector (including general practitioners); and improved quality and effectiveness of mental health services. A further National Mental Health Promotion and Prevention Action Plan was released in 1999, and the third and fourth National Mental Health Plans were produced in 2003 and 2008, respectively.

¹³ Evaluation of the National Youth Suicide Prevention Strategy: <http://www.aifs.gov.au/institute/pubs/ysp/evalrep1.pdf>, page 35)

These plans provide a well-developed framework for better outcomes in the mental health field by recognizing that certain social groups have a higher risk of mental health problems. These groups include: Aboriginal and Torres Strait Islander peoples, people from Culturally and Linguistically Diverse (CALD) backgrounds, homeless and disadvantaged people, those exposed to traumatic events, and those with serious or chronic health problems.¹⁴ The Australian suicide prevention policy is contained within this broader current of mental health action, and focuses specifically on:

- national, state and local interventions;
- involvement of community, consumers and young people;
- intersectorial collaboration;
- sensitivity to cultural diversity;
- direct prevention approaches (including: primary prevention and early intervention, cultural change, crisis intervention and primary care, treatment, support and postvention, and access to means/injury prevention).

5.2.4 The Aboriginal and Torres Strait Islander emotional and Social Well-Being (Mental Health) Action Plan (1996)

A specific national initiative to improve the emotional and social wellbeing (mental health) status of Aboriginal people and Torres Strait Islanders has been underway since 1996–1997. The *Aboriginal and Torres Strait Islander Emotional and Social Well-Being (Mental Health) Action Plan* was administered by the Office for Aboriginal and Torres Strait Islander Health. Funding of \$20.5 million (AUS) was allocated over a period of four years, until 2000. This Well-Being (Mental Health) Action Plan aimed to:

- enhance the relevance of mainstream mental health services to the needs of Aboriginal people;
- improve the mental health capacity of Aboriginal and Torres Strait Islander-specific primary health care services;
- develop Aboriginal and Torres Strait Islander mental health services and programs.

Aboriginal health policy is heavily based on the principle of primary health care delivered by Aboriginal community-controlled organizations.

5.2.4 Policy and Programs for preventing suicide in Western Australia

In 1998, the government of Western Australia recognized the urgency of youth suicide and produced its own policy addressing the Aboriginal population, which complements the 1995 National Youth Suicide prevention Strategy. It outlines four overall goals for Aboriginal Youth Suicide Prevention, namely to:

¹⁴ <http://www.health.gov.au/internet/main/publishing.nsf/Content/mental-pubs-n-pol08>

- prevent both fatal and non-fatal suicidal behaviour among Aboriginal people aged 25 years or less.
- reduce the impact of suicide and suicidal behaviour on individuals, families and communities.
- improve access and availability of appropriate prevention services for vulnerable youth groups and high-risk individuals.
- encourage the development of Aboriginal family and community networks to support young people at risk and to promote their resilience and emotional well being.”¹⁵

The recommendations specify that strategies for suicide prevention should take into consideration Aboriginal perspectives and local knowledge, local issues, cultural factors and the particular needs of specific communities. They should aim at reducing risk factors and enhancing protective and resilience factors in order to be effective in achieving the program goals of reducing risk factors at multiple levels:

- *direct suicide risk factors* – suicidal thoughts, attempts, and exposure to suicide;
- *related individual-level risk factors* – substance abuse, depression, early school leaving, domestic violence, child abuse, discrimination and unemployment;
- *community-level risk factors in youths’ social environments* – educating the general public, parents and service providers; understanding youth suicidal behaviour; removing obstacles to prevention services and treatment.

In addition to reducing risk, the strategy aimed to enhance social and personal protective factors, promoting resilience among Aboriginal children and youth, as well as their networks of close friends, family, school and community.

The strategy includes universal, selective and indicated interventions. The universal, population-level interventions involved promoting resilience among Aboriginal children and youth, and restricting access to the means of suicide. The selective interventions involved training professionals and staff in early detection and culturally appropriate support of youth at risk. Indicated, individual-level interventions focus on counselling for high-risk individuals, as well as for family and friends bereaved by the death by suicide of a relative or peer. The Western Australia document also recommends specific practice policies and standards:

- develop guidelines for culturally responsive hospitals and health services;
- develop culturally appropriate referral guidelines for the assessment and management of Aboriginal students;
- insure access to treatment for Aboriginal youth with severe mental health disorders;
- improve risk screening procedures for youth taken into custodial facilities;

¹⁵ *Recommended Policy and Programs for Preventing Suicide and Suicidal Behaviour Among Aboriginal Youth in Western Australia*, p. 6: http://www.aboriginal.health.wa.gov.au/docs/youth_suicide.pdf

- insure cultural appropriateness when assessing or treating Aboriginal prisoners or people undergoing community-based sentencing who are ‘at risk’ of suicide;
- development the Police Service Policy Manual to help police to reduce the risk of suicide in contained communities via collaboration with schools and other community agencies;
- A Youth Suicide Advisory Committee should monitor the implementation of the practice protocols.

Finally the policy addresses work force issues, recommending more training opportunities for Aboriginal mental health workers and counselors and the creation of sustained employment opportunities for those who have completed training. As well, non-Aboriginal workers need training on cultural sensitivity issues, which should be done in collaboration with Aboriginal organizations and agencies.

5.2.5 Summary

An overview of 156 local suicide prevention projects funded under Australia’s National Suicide Prevention Strategy identified a total of 43 programs for Aboriginal and Torres Strait Islander Peoples (Headey et al., 2006). Most (36) of these were community-based programs; none were in schools. Peer support groups were used in 7 programs, 10 provided training to professionals, 24 conducted public health interventions to increase well-being, whereas 7 used public health approaches that focused on improving mental health literacy. Few of these have been systematically evaluated.

Unfortunately, while suicide rates have decreased for the general population, they have not reduced for Aboriginal people. As well, suicides are occurring among younger Aboriginal children, and there is an increase in attempts with more lethal means (especially hanging), and cluster outbreaks, which may reflect a long-standing neglect in addressing mental health issues and trauma. Despite well-designed policies, implementation has been inconsistent; some communities have had several suicide prevention programs but do not have any mental health services. This creates an unmet expectation of services and a heightened state of concern or even hypervigilance with no possibility of resolution by appropriate referral. In the opinion of Dr. Helen Milroy, an expert on Aboriginal mental health in Australia

“the disconnect between the suicide prevention programmes and mental health services been problematic and led to duplication, poor coordination, and in some cases a waste of resources. Suicide prevention programs have become industries in their own right rather than integrated, comprehensive approaches to peoples’ development. Although there are many workforce documents, there has not been enough invested in training and sustainability as many Aboriginal mental health workers do not stay in the job long for a variety of reasons. My biggest caution would be making absolutely sure the suicide prevention strategy and mental health policy align and are in synch with funding and policy cycles.” (H. Milroy, *personal communication*, April 10, 2009)

5.3 The United States

In the U.S., the federal government has played an important role in suicide prevention since the 1960s.¹⁶ Initially, a special suicide unit was established at the National Institute of Mental Health (NIMH). As the suicide rates continued to rise, the Secretary's Task Force produced a four volume report on Youth Suicide, in January 1989. The Guidelines for the Formulation and Implementation of the National Strategies issued by the WHO in the 1990s provided a major impetus in organizing a public-private partnership for the development of a national suicide prevention strategy, which was eventually published in May 2001.

Public agencies, within the U.S. Department of Health and Human Services (DHHS), that participated in the development of the national suicide prevention strategy, included: the National Institutes Health; the Office of the Surgeon General; the Substance Abuse and Mental Health Services Administration (SAMHSA); the Health Resources and Services Administration (HRSA); and the Indian Health Service (IHS). From the private sector, organizations and stakeholder participants include: the Suicide Prevention Advocacy Network (SPAN); survivors of family members and friends who died by suicide; suicide attempt survivors; community activists; pharmaceutical manufacturers; and health and mental health clinicians.

The membership of this organization includes survivors of suicide attempts, community activists and health and mental health clinicians. In advance of the writing of the strategy, a Consensus Development Conference held in 1997 detailed five at-risk populations in need of attention, namely: (i) the young; (ii) the elderly; (iii) mental health services consumers; (iv) the chronically ill; and (v) diverse populations of Hispanic, Alaskan Indians/Native American; young black males; and gay and lesbian, transsexual, and bisexual people.¹⁷

Participants from the public and private sectors as well as researchers and policy makers worked together in regional, multidisciplinary groups to elaborate recommendations for the strategy. These recommendations included a set of 81 goals, objectives and recommended activities for suicide prevention. In 1999, 15 of these points were identified as critical elements and incorporated into the Surgeon General's 'call to action to prevent suicide'; a blueprint for suicide prevention noting a disproportionate number of suicides among young, male Native Americans aged 15-24.

The National Strategy for Suicide Prevention Federal Steering Group developed a plan based on this background work, outlining national goals and objectives. These were defined for Federal (national), State, local and tribal levels. In 2000, selected experts met with the Steering Group for a consultation in Baltimore, Maryland. This meeting led to a

¹⁶ At a Glance - Suicide Prevention in the United States:

<http://mentalhealth.samhsa.gov/suicideprevention/glanceUS.asp>

¹⁷ Suicide Prevention: Prevention Effectiveness and Evaluation, p. 7:

<http://www.sprc.org/library/prevtoolkit.pdf>

comprehensive but provisional plan, and a web page was set up to register comments and feedback from across the nation. In response to this feedback, the National Suicide Prevention Strategy was finalized in 2001. The strategy focuses on four main goals:

- Prevent premature death due to suicide;
- Decrease the frequency of suicidal behaviours;
- Minimize the after-effects of injurious suicides and their impact on families and friends;
- Enhance resiliency, resources, interconnectedness and respect for individuals, their families and the whole community.¹⁸

As part of the National Suicide Prevention Strategy, a Suicide Prevention Resource Center was set up in Washington DC as a central resource in its own right, as well as a support to the 50 states, some of which developed their own plan. It provides technical assistance to those designing and implementing suicide prevention plans. These include States and Tribes developing and implementing statewide or tribal youth suicide prevention and early intervention strategies. Both the National Strategy and the National Center have been successful in terms of stimulating the States to take action to prevent suicide. Fully 47 of 50 States have suicide prevention strategies that are linked to the national strategy, and have been aided by the National Center.¹⁹

In line with the UN and WHO recommendations, The U.S. National Strategy for Suicide Prevention recommends a public health approach which focuses on both population and individual level interventions. This is considered most likely to produce important and long-term reduction in suicide rates. This involves a cycle in which (i) the problem is defined through epidemiological surveillance; (ii) causes are identified through research elucidating risk and protective factors at individual and population levels; (iii) interventions to address the causes are developed and tested; (iv) promising interventions are implemented and subject to rigorous evaluation; (vi) the problem is reassessed and redefined through ongoing public health surveillance.

Reducing the stigma associated with mental health problems and help-seeking plays a central role in the strategy, as evidence suggests that many people who attempt suicide have a mental or substance abuse disorder but are reluctant to seek help due to stigma. The U.S. National Strategy gives the following 11 general recommendations for suicide prevention:

1. Promote awareness that suicide is a public health problem that is preventable;
2. Develop broad-based support for suicide prevention;

¹⁸ National Strategy for Suicide Prevention: Goals and Objectives for Action; <http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/intro.asp>

¹⁹ Suicide prevention programs in different States, are described in a series of fact sheets: http://www.sprc.org/library/event_kit/index.asp#gen_info_factsheets

3. Develop and implement strategies to reduce the stigma associated with being a consumer of mental health, substance abuse, and suicide prevention services;
4. Develop and implement community-based suicide prevention programs;
5. Promote efforts to reduce access to lethal means and methods of self-harm;
6. Implement training for recognition of at-risk behavior and delivery of effective treatment;
7. Develop and promote effective clinical and professional practices;
8. Improve access to and community linkages with mental health and substance abuse services;
9. Improve reporting and portrayals of suicidal behavior, mental illness, and substance abuse in the entertainment and news media;
10. Promote and support research on suicide and suicide prevention;
11. Improve and expand surveillance systems for research.

As can be seen from the list, the strategy is general in scope. In 2005, SAMSHA began to provide grants for suicide prevention programs under the Garrett Lee Smith Memorial Act.²⁰ Initially, 12 initiatives for American Indian and Alaska Native communities were funded. Little program information and no evaluation data are available for most of these.

The One Sky Center in Oregon is a national resource center for American Indian and Alaska Native mental health promotion and suicide and substance abuse prevention.²¹ They have reviewed evidence-based suicide prevention programs that are potentially useful in ‘Indian Country’, and produced a *Suicide Prevention Guide*, which is currently available in draft form.²² The guide lists the evidence-based programs listed by SAMSHA (see Section of this report) as well as some ongoing culturally adapted programs for Native communities. The National Indian Child Welfare Association (NICWA), developed the *Ensuring the Seventh Generation: Youth Suicide Prevention Toolkit* for child welfare and mental health programs. The toolkit educates child welfare workers on the warning signs of suicide, risk and protective factors, suicide prevention and intervention methods, and when workers should seek professional mental health services.²³

There have been recent efforts to press Congress to provide more specific support to American Indian and Alaska Native communities emphasizing community development, youth development and family strengthening, and clinical services.²⁴

²⁰ <http://www.apa.org/ppo/issues/eglsupt904.html>

²¹ <http://www.oneskycenter.org/>

²² <http://www.oneskycenter.org/documents/AGuidetoSuicidePreventionDRAFT.pdf>

²³ <http://www.nicwa.org/YouthSuicidePreventionToolkit/YSPToolkit.pdf>

²⁴ Written testimony of R. Dale Walker, MD, Director, One Sky Center, American Indian/Alaska Native National Resource Center for Substance Abuse and Mental Health Services, Oregon Health & Science University, Portland, Oregon, U.S. Senate Committee on Indian Affairs, Oversight Hearing on Recent Trends in Youth Suicide and Prevention, 111th Congress, 1st Session Sess. (2009).

5.4 New Zealand

Like Australia and the US, New Zealand's development of national suicide prevention policy was also spurred by the calls of the UN and WHO for development of comprehensive national strategies to prevent suicide, as well as also by recognition of an elevated rate of suicide among those 15 to 24 years of age. As a result the New Zealand government initiated the development of a national strategy on youth suicide prevention in July 1996.

5.4.1 The First National Strategy on Youth Suicide Prevention

The strategy was developed by a steering group of key informants including: a Māori Reference Group; an expert group including clinicians and service providers; and officials from relevant government agencies.²⁵ This steering group produced a document that served as a basis for the strategy entitled *Report and Recommendations of the Steering Group on Youth Mental Health and Suicide Prevention* (1994).

As epidemiological research suggested that the suicide rate among Māori was higher than that of the general population, the steering group recommended that a specific suicide prevention strategy should be developed for Maori as an integral part of the National Strategy. In 1997 the steering group developed a Draft Youth Suicide Prevention Framework – *An Approach for Action*. This was distributed among Maori community groups, individuals, and to health and social services providers for feedback. The framework was revised by the Ministry of Health on the basis of incoming feedback. In 1998, the National Strategy on Youth Suicide Prevention was released and included a specific strategy addressing suicide among Māori. Thus, the National Youth Suicide Prevention Strategy consists of two related policy documents: (i) *In Our Hands*- the general population strategy; (ii) *Kia Piki te Ora o te Taitamariki*- the strategy which focuses on specific Māori needs and approaches.

The Maori specific policy focuses on community development, stressing that services for Maori must be culturally responsive and appropriate. The general population strategy consists of five basic goals which relate to different levels of suicide prevention. They cover a broad range of initiatives, including improving the resilience of young people, decreasing their vulnerability, and supporting delivery of services to people affected by suicide. As part of the implementation of the strategy, Suicide Prevention Information New Zealand (SPINZ) was launched in 1999. Its main purpose was to provide accurate, up-to-date, information on youth suicide prevention to a range of audiences.

This National Strategy went through two phases of evaluation. The first phase, in 2003, aimed to identify best practices, as well as barriers and facilitators to implementation. This was done through interviews with key informants from government and non-government organizations involved in the development and implementation of the

²⁵ Phase One Evaluation of the New Zealand Youth Suicide Prevention Strategy, p. 20 - *youth-suicide-prevention-strategy-evaluation-phase-one-executive-summary.doc*.

strategy. Results from the evaluation suggested that insufficient implementation planning had been undertaken before the release of the strategy, leading to sub-optimal implementation on the ground. The second phase of evaluation took place in 2004 and focussed on the “end-user” and on central government. Again feedback on the quality of implementation was sought, providing further information to the Ministry of Youth Development to help optimize the strategy. As a result of these evaluations, a number of recommendations were made in order to enhance delivery of the strategy. These include:

- developing extended youth suicide prevention interventions for all young people (including Māori);
- ensuring that best practices are identified and implemented as part of the strategy
- increasing and optimizing cross-agency collaboration;
- providing people involved in strategy development with a clear understanding of youth suicide prevention;
- aligning of new and existing activities with the strategy framework;
- establishing the agreed upon approaches to youth suicide prevention nationally.

Over the course of developing and implementing the National Strategy on Youth Suicide Prevention, the New Zealand youth suicide rate declined significantly from a peak of 156 deaths in 1995 to 96 deaths in 2000, the lowest number since 1986.

5.4.2 The Second National Strategy on Suicide Prevention

A second New Zealand Suicide Prevention Strategy, was launched in June 2006, providing a framework for the next ten years (2006-2016).²⁶ This strategy is linked to the overall New Zealand Health Strategy (2000). The Second National Strategy on Suicide Prevention builds on the first strategy, especially the knowledge gained through its various evaluations. The strategy emphasizes the following four approaches as necessary component parts of the prevention strategy: (i) promoting protective factors at the community level; (ii) early identification of at-risk individuals and improvement of interventions; (iii) provision of support for people after an attempted suicide; (iv) developing an evidence-base to guide research clinical practice and program evaluation. In addition to these four broad approaches, the strategy outlines the following six specific domains of action that overlap with the broad approaches:

1. promotion of wellbeing and mental health, and prevention of mental health problems;
2. providing better care for people with mental health problems that are associated with suicidal behaviour;
3. improving care for people who make suicide attempts;
4. reducing access to the means of suicide;

²⁶ New Zealand Suicide Prevention Strategy 2006-2016, <http://www.spinz.org.nz/page/29-NZ-Suicide-Prevention-Strategy>

5. offering counselling and support to families, friends and other people affected by a suicide or a suicide attempt;
6. disseminating accurate knowledge regarding the rates of suicide, its causes and most effective interventions.

The strategy suggests that the broad approaches and more specific domains of action should be integrated on the ground to produce successful programs of suicide prevention. The government allocated \$10 million for a period of four years for implementation of the first stage of the Strategy stage.²⁷ This includes funding for a National Depression Awareness Initiative launched in May 2005 and a Support for Families Initiative for families bereaved by a suicide launched in 2006..

This strategy has numerous strengths. It recognizes the importance of different kinds of evidence, leadership, monitoring and evaluation. The strategy makes explicit reference to social values that underpin the framework. It stresses a population approach, by reference to “whole government” and “whole community” as vehicles of action. It also takes a long-term perspective on suicide prevention, recognizing that change can only come about through concerted and enduring action. Its deficiencies include a lack of clarity on leadership, governance structure and process. The content is mostly high-level and leaves open many questions of policy translation and implementation on the ground. This strategy does not focus specifically on youth or Maōri.

5.4.3 Best strategies for suicide prevention

In a literature review of existing programs, a series of promising interventions were identified as the best strategies for suicide prevention for New Zealand (Beautrais et al., 2007):

Initiatives for which there is strong evidence—

- training for medical practitioners to improve recognition of depression and suicidal behavior;
- reducing access to the means of self-harm (e.g. domestic gas, gun possession, carbon monoxide emissions from vehicles, availability of pesticides, the package size of analgesics, banning Internet sites that promote suicide);
- suicide alertness and intervention training for people who are in direct contact with youth (e.g. clergy, school staff, prison personnel, workers in juvenile detention and welfare centers).

Initiatives that appear promising—

- providing support to persons after a suicide attempt, as they are at a greater risk of making another attempts (e.g. sending follow-up letters to people after hospital discharge; providing a “green card” for emergency access to mental health services; employing counsellors to coordinate follow-up services);

²⁷ Suicide Prevention Strategy, http://www.hpm.org/en/Downloads/Half-Yearly_Reports.html

- providing them adequate pharmacotherapy, psychotherapy and psychological intervention for people suffering from mental health problems;
- educating the community about mental health and suicidal behaviour to improve public recognition and attitude towards mental illness and suicide;
- developing screening programs for depression and suicide risk (in schools, universities, in primary care settings);
- setting up crisis centers and crisis counselling (including crisis telephone lines);
- promoting school-based programs for skill enhancement;
- encouraging responsible media coverage of suicide to disseminate accurate information about mental health and suicide in a non-stigmatizing manner;
- offering counselling and support to families, friends and other people affected by a suicide or a suicide attempt;
- improving control of alcohol to decrease the rates of acute alcohol intoxication which is often associated with impulsive suicide attempts;
- developing community based mental health services and ensuring that they are culturally appropriate.

There were also some initiatives that are not recommended because there is no or little evidence of their effectiveness and some evidence of potential harm:

- school-based programs that focus exclusively on raising awareness about suicide (as opposed to programs that given students ways of coping or peer intervention);
- public health messages about suicide and media coverage of suicide issues, which may amplify concern and result in mimicry;
- no-harm and no-suicide contracts (in mental health settings), which give a false sense of security; and
- recovered or repressed memory therapies.

5.5 Greenland

Greenland has one of the highest suicide rates in the world. Rates have increased since the 1950s, peaking in the 1980s, after which they stabilized in the 1990s at around 100 per 100,000 inhabitants (50 deaths by suicide a year). The rate is highest among males aged 15-19. Because of these alarming rates, in March 2004 the Minister of Family and Health established two working groups and a steering committee to propose a national strategy for suicide prevention based on WHO recommendations. The strategy includes the creation of a national network for the prevention of suicide whose mandate is to implement initiatives and ensure the coordination of such projects.

The strategy is explicitly evidence-based. It is grounded in knowledge that suicide is preventable through coordinated initiatives carried out at various social levels. The strategy takes into consideration various domains such as social life, culture, healthcare and education. In line with research evidence, the strategy suggests that prevention initiatives be simultaneously targeted at the primary, secondary and tertiary level. The specific objectives of the strategy are to:

- 1) help clinicians and gatekeepers identify people at risk;
- 2) offer opportunities to seek advice and receive treatment;
- 3) increase professional competence in suicide prevention;
- 4) propagate the attitude that people who are suicidal deserve help and that suicide is not a solution to ongoing problems;
- 5) increase the well-being of young people (ability to tackle conflicts);
- 6) strengthen local communities to enable them to participate in preventive work;
- 7) generate research-based knowledge specific to the context of Greenland; and
- 8) ensure evaluation of initiatives within Greenland.

More detailed recommendations are described for each one of these objectives. These include hospital guidelines to identify and treat suicidal patients, the creation of material resources to guide and train healthcare professionals, and the provision of face-to-face therapy for individuals at risk.

The strategy proposed by Greenland is especially innovative due to its emphasis on social, economic and cultural gaps that may increase the risk for suicide. Suicide is perceived as a national problem and not solely as an individual psycho-social difficulty. For example, it is clearly recommended that nationwide initiatives be implemented in order to reduce social inequalities at large and that youth have access to survival courses and language classes.

Like other nations, the strategy proposed by Greenland emphasizes social, economic and cultural factors that may increase the risk for suicide. Suicide is perceived as a national problem and not solely as an individual psycho-social difficulty. For example, it is clearly recommended that nationwide initiatives be implemented in order to reduce social inequalities at large, and that youth have access to survival courses and language classes that may promote resilience and self-esteem- thereby decreasing suicide risk.

The rise in suicide rates in Greenland has been attributed to some of the consequences of widespread social change in the past century (Bjerregard & Lynge, 2006). This social change has radically disrupted the traditional sense of identity and coherence which provided everyday meaning to life among the Inuit of Greenland. This meaning was based on the provision of food and shelter for one's family through traditional subsistence activities (e.g. hunting and fishing). In the past few decades, this way of life has been displaced as the Inuit become more reliant on imported food and western style housing. This also has disrupted socio-moral ecologies, creating new community environments to which the Inuit are unaccustomed. The Greenland suicide prevention strategy highlights the importance of helping individuals and communities establish a sense of empowerment and of responsibility towards their own lives.

Another suggestion from the Greenland strategy is to focus on buttressing childrearing practices. Again traditional parenting and childrearing practices have been disrupted by the process of sedentarization and community formation, in that they were well-adapted to a social milieu that was reliant upon hunting, fishing and small-scale (often mobile)

communal living. Traditional models of childrearing are difficult to maintain with the decline in these practices, and the establishment of larger static communities. The suicide prevention strategy notes that childrearing must be modified to new contexts of living in order to be mutually adaptive to the needs of parents and children. In Canada, the process disruption of traditional parenting practices was further aggravated by the system of residential schools and experiences of prolonged hospitalization of many children and adults for treatment of tuberculosis.

Suicide is approached in this report as a complex issue that can only be addressed if all citizens are given opportunities with regard to employment, suitable housing and safe living conditions and if a cultural and social equilibrium is found between traditional practices and beliefs and the contemporary situation. It is believed that a holistic approach must be adopted when talking about suicide prevention.

Suicide is approached in the Greenland report as a complex issue that can only be addressed if all citizens are given opportunities with regard to employment, suitable housing and safe living conditions. The report asserts that cultural and social equilibrium must be attained between traditional practices and beliefs, and the contemporary situation on the ground. As such, the strategy is holistic and aligned with Inuit values as well as with the principles of public health that demand attention to social context, as well as to primary, secondary and tertiary prevention.

5.6 Summary & Analysis

All of the countries reviewed have broadly similar strategies, built on the recommendations of the World Health Organization. Each has broad strategies applicable to the general population, as well as specific strategies targeted at their respective indigenous peoples, and at young people.

The most common primary prevention strategies shared across the nations hitherto discussed include: (1) restriction of the available means of suicide; (2) school-based programs, including suicide awareness curricula, social problem-solving skills, and skills programs targeted to high-risk youth; (3) screening and referral of high-risk youth by clinicians and gatekeepers; (4) peer helpers and peer support programs; (5) gatekeeper training; (6) community-based approaches; and (7) working with the media to ensure the appropriate presentation of suicide.

One recommendation given by the WHO, and followed by all the countries discussed, is restricting access to means of suicide (i.e. gun control, detoxification of domestic gas, detoxification of car emissions, and availability of toxic substances). There is some evidence that these types of population interventions have been followed by a decrease in suicidal behavior. For example the introduction of legislation designed to reduce the package size of analgesics (especially paracetamol), which are potentially fatal in overdose, has led to reductions in both morbidity and mortality associated with this method of suicide (Hawton et al., 2001, 2003; Hawton, 2002).

There is little knowledge regarding the impact of public health messages about suicide. Studies in Australia and New Zealand have shown little effect of tested interventions in this regard. Tested interventions had no impact on primary outcomes (such as decreasing suicidal attempts, treatment seeking, or use of antidepressants)⁷. Further intervention development and subsequent evaluation is necessary in this regard. This would allow for the development of evidence-based public health messages about mental illness and suicide prevention.⁶

Another key recommendation involves increasing “mental health literacy” or knowledge about mental disorders and their treatment. There is evidence that many people in the general population have limited or inaccurate knowledge about mental disorders including depression (Jorm et al 2000; Goldney et al 2001; Paykel et al 1997). Likewise stigma still plays a prominent role in preventing service utilization. This lack of knowledge and the stigma attached to mental health problems impede healthcare use by suicidal youth. A reduction in stigma and a more supportive attitude might be achieved through community-based educational programs and mass media campaigns. Better depression recognition can be achieved through enhanced public knowledge about its signs and symptoms, management and treatment. As a result people may better recognize signs of depression (in themselves and others), and may be more likely to seek treatment for themselves, and support others to get treatment.

6. CONCLUSION

6.1 Identifying What Works

As can be seen from this review, there are many suicide prevention programs in action across the globe. Some of these are general strategies, while others target specific sub-groups of the population. Only a few specifically target Aboriginal youth. Unfortunately, most of these strategies have not been systematically evaluated by independent researchers. Even where outcome evaluation has provided some evidence of benefit, there are numerous methodological problems in determining cause and effect. Suicide rates are influenced by many factors beyond specific policies, programs and interventions. For example, one might reasonably infer that decreased suicide rates in a population are a consequence of a recently implemented national suicide prevention policy. However, this may be confounded by overarching social trends such as an improved economy or general investment in health services. It may also represent a statistical fluctuation or regression towards the mean. Only well-designed longitudinal intervention studies with large samples can overcome these problems of confounding and allow more definite conclusions about the causal efficacy of a prevention program.

Another factor that limits inferences from the examined data is the length of time needed to observe the effect of a prevention strategy. For example, some early childhood interventions aim to decrease adolescent suicide. Systematically examining such an intervention would involve over 10 years of follow-up with a sample (and a control group). Such studies are expensive and difficult to conduct; hence they are few and far between. Partly for this reason, evidence for the effectiveness of suicide interventions on the suicide rate itself remains very limited. Instead, researchers frequently measure other aspects of knowledge, attitudes and behaviour that may be related to suicidal behavior or to preventative actions. These data are collected from (i) at-risk youth themselves (ii) gatekeepers, clinicians and key informants. In terms of at-risk youth themselves, variables often measured include improved knowledge related to suicide, increased coping skills and more positive attitudes to help-seeking and mental health services. Additionally, studies examine increased knowledge among clinicians and gatekeepers about depression and suicide. Studies also frequently examine rates of detection and treatment of depression in primary care, as a proxy for early intervention in suicide. Such evaluations are based on the assumption that changing knowledge, beliefs, behaviours and attitudes on suicide and depression will eventually have a positive effect on suicide rates.

Given the limited evaluation of suicide prevention programs among Aboriginal youth, to identify promising practices, it is necessary to extrapolate from the general population and from our understanding of the dynamics of suicide. Recommendations can be based on those programs that have the clearest evidence of effectiveness, a good fit with Aboriginal values, and are feasible in a range of settings, including in rural or remote communities with limited access to professional mental health services and related resources.

Recommendations and guidelines for ‘what works’ in aboriginal populations should be made in light of existing research with Aboriginal youth. However because such rigorous evaluations are so scarce, it also makes sense to identify and discuss promising interventions in the general population. We can then theorize as to their potential applicability among aboriginal youth, even if they have not been subject to rigorous evaluation in that population.

6.2 Common Approaches

Our search of the literature from across Canada and other similar countries, identified the following common approaches to the prevention of youth suicide:

1. screening for depression and suicide risk in schools and clinical settings, with appropriate follow-up;
2. therapeutic interventions for depression and suicidality (most commonly medication, cognitive behaviour therapy or other types of psychotherapy);
3. school-based coping skills training, accompanied by suicide awareness/ education programs;
4. crisis services and teams rapidly deployed to the suicidal
5. continued follow-up and support to those who have attempted suicide;
6. follow-up and support to the relatives and friends of those who have attempted suicide or died by suicide;
7. gatekeeper training for primary care providers, teachers, peers and other key community members to recognize suicidality and make appropriate referrals;
8. crisis hotlines tailored to the local culture and staffed at key hours;
9. means restriction; and
10. media education.

The interventions span primary, secondary and tertiary prevention. All these interventions have some supporting research with regards to their effectiveness in the general population (Gould, et al, 2003; Institute of Medicine, 2002; Middlebrook et al., 2001). However, all of these potentially helpful interventions need further evaluation and most have not been closely examined in Aboriginal populations.

As can be seen many of these interventions are delivered in either school or clinical settings. They also implicitly recognize the vital role played by teachers, primary care providers and peers. Interestingly, with the exception of some school programs, parents are not often a significant target in the common strategies presented above. Given the importance of families in Aboriginal communities, and the prevalence of mental health problems among the parents of many distressed youth, this is an important omission that should be remedied in future programs.

The most well-demonstrated methods for reducing suicide involve restricting access to lethal means (e.g. firearms, poisons) and training physicians or other primary care providers to recognize and treat depression and suicidal behavior (Mann et al., 2005). The

feasibility of restricting access to means depends on the social context, but has reduced suicide rates by 1.5 to 23% (Nock et al., 2008). Improving primary care recognition and treatment of depression has reduced suicide from 22 to 73% in specific instances (Szanto et al., 2007). The feasibility of restricting access to means depends on social context as well as prevailing cultural values. Means restriction for hanging or the use of firearms for suicide among Aboriginal youth in remote communities may not be feasible.

One of the most common strategies for suicide prevention involves training physicians or other primary care providers to recognize and treat depression and suicidal behavior (Mann et al., 2005). There is increasing evidence for the effectiveness of treatments for depression among adolescents, including psychotherapy and psychopharmacology. Specific forms of intervention for that have some demonstrated efficacy for depression include cognitive behaviour therapy (CBT; Goodyer, et al., 2008); and dialectical behaviour therapy (DBT; Katz et al., 2009; Stanley et al., 2007). Improving primary care recognition and treatment of depression has had an effect on reducing suicide in specific instances (Szanto et al., 2007). Training for primary care providers working in Aboriginal communities in the recognition and treatment of depression can also be extended to teachers and other key gatekeepers.

Acutely suicidal individuals are in need of immediate intervention. Interventions that work to interrupt the cascade of self-destructive thoughts and actions during an emergency can be very helpful. Rapidly deployed crisis services are probably the best intervention in this regard, though crisis lines may be a useful substitute. Crisis lines may be especially useful in remote communities where formal health service coverage is thin.

Follow-up for individuals who have had a period of suicidality is particularly important. Some evidence suggests that even basic follow-up that creates a sense of continued concern can reduce the risk of suicide in people who have been hospitalized for suicide attempts (Motto & Bostrom, 2001). This underscores the importance of continuity of care and follow-up, which pose particular challenges for remote communities. Crisis services or mobile crises teams should be made readily available to Aboriginal communities. These teams can respond to crises, visiting people in their homes to defuse a crisis.

Many of the interventions for youth discussed in this report are school-based. Some evidence suggests that teaching general life coping skills in schools is a useful intervention. Likewise, training teachers and peers to recognize depression and suicidal behavior has been shown to have beneficial effects on proximal variables such as knowledge about suicide and referral to appropriate programs. Systematic training of teachers, staff, parents and youth in recognition and referral for suicidal behavior is an important component of most prevention programs. This can be integrated into a broader curriculum including coping-skills and mental health literacy. This should be accompanied by the distribution of materials and resources about local services and organizations that provide help for people in crisis. Schools provide an important setting to deliver suicide prevention programs but do not reach youth who do not attend. These programs therefore need to be delivered in other family and community settings where youth who have 'dropped out' of school can be engaged.

6.3 Comprehensive Approaches to Suicide Prevention

Suicide prevention methods target different levels: the community, the family, or the vulnerable individual. There is general agreement that programs directed to several of these levels at the same time will achieve the best effects. In principle, the different components of comprehensive, multilevel programs can reinforce each other resulting in much stronger effects than any single intervention. However, some types of service are more feasible for a given setting.

Suicide interventions also involve different time frames: the early sources of vulnerability and resilience in infancy and childhood, which will have effects decades later; the period of increasing vulnerability during adolescence and young adulthood; the immediate precipitants of suicidal behaviour in terms of life events like the breakup of a relationship or trouble with the law; and the moment of the crisis situation itself, when the individual may be intoxicated and emotionally distraught.

These time frames determine the most appropriate ways to deliver interventions: through mass media or other local communications like community radio or TV, community centres or other places where youth and their parents can be reached; the school or other settings where youth congregate; primary health care or social services, mental health services based in community clinics or mobile crisis teams; telephone hotlines; or peer and other 'natural helpers' who may be close at hand.

Finally, there is some indication that for smaller communities, it is not so much the specific type of intervention program as the degree of community initiative, organization and involvement that results in the greatest the mental health benefits. Communities that are able to sustain their programs over several years may have the best outcomes

6.4 General Principles

Below, we distill what we consider to be critical ingredients of the programs and evaluations reviewed in this report, to assist thinking about best practices for suicide prevention for Aboriginal youth.

1. Suicide prevention initiatives should address the local Aboriginal population with a focus on groups that are elevated risk for negative outcomes, or who experience additional barriers to accessing services, including youth and people living in rural and remote locations.
2. Suicide prevention initiatives should be guided by the following good practice principles:

- use a comprehensive multidimensional approach involving indicated, selective and universal targeting, a spectrum of interventions, a range of settings and sectors, and multiple levels of action (individual, family, community);
- ensure effective intervention by basing programs on the best available research evidence, including extrapolating from studies on the general population. Evidence necessary to develop an effective overarching strategy includes research on risk and protective factors, evaluation of intervention efficacy and practice-based evaluation of program effectiveness;
- ensure accessibility of services and programs for rural and remote communities through mobile crisis and support teams and networking strategies;
- enhance engagement of marginalized and hard-to-reach individuals within communities through active outreach;
- build capacity at all levels of service systems, respecting local social ecologies and cultural values and strengthening resources grounded in Aboriginal knowledge and traditions.

3. Suicide prevention initiatives should be community-based, developed and implemented within the context of a comprehensive and systematic policy framework that supports partnerships between sectors of government and communities.

4. In order to base practice on evidence, the quality and quantity of suicide and mental health research within the indigenous population must be improved. This should involve participatory action research projects where communities develop (or adapt) interventions in collaboration with researchers. Aboriginal communities must be centrally involved in the tailoring of existing general population interventions in order to ensure they are culturally appropriate.

6.5 Specific Recommendations

Although there are still very few evaluation studies that demonstrate that suicide prevention programs actually work, there is broad consensus that certain specific types of interventions are likely to be effective. The specific programs or interventions that appear to be most successful:

- (1) restrict access to common means of suicide;
- (2) provide school-based programs that teach coping skills to students, as well as training teachers and staff how to recognize individuals at risk and refer them to counselling or mental health services;
- (3) train youth as peer counsellors or ‘natural helpers’ to those at risk;
- (4) train other individuals with whom youth come into regular contact (teachers, nurses, primary care providers, clergy, parents) as ‘gatekeepers’ so that they can recognize and refer youth at risk;

- (5) ensure ready access to a range of mental health services including counseling and psychotherapy;
- (6) mobilize the community to come together to develop suicide prevention programs and crisis intervention teams;
- (7) provide culturally appropriate support for families to promote positive parenting from early childhood through adolescence;
- (8) develop family and community activities that bring youth and elders together to share cultural knowledge, values and perspectives; and
- (9) ensure that mass media portray suicide and other community problems in appropriate ways.
- (10) improve communication, knowledge translation and coordination of suicide prevention and mental health promotion activities to build on local, regional and national strengths.

(1) Means Restriction

Means restriction is one of the most clear-cut interventions for reducing suicide, particularly those that are impulsive. It has proven effective when there is a method of suicide that can be readily controlled through some physical method. Restricting access to firearms is not practical in most rural and remote Aboriginal communities because of their role in hunting; though some communities have instituted a central armory where weapons can be kept securely. Means restriction should be carefully considered in each community, based on information on the most common methods used by youth.

(2) School-based Programs

Of all forms of prevention programs, school-based programs have the greatest proven effectiveness. Two-day sessions built into regular curriculums have been shown to increase knowledge and appropriate attitudes toward suicide in students. Most school-based suicide prevention programs target grades 9-10 (14-15 year olds). However, drug and alcohol use often starts earlier than grade 9 in many Aboriginal communities and programs therefore should be aimed at younger children as well.

The curriculum in school-based programs usually includes information and exercises to improve communication strategies, problem solving and coping skills. Training of teachers and parents is an important initial part of such programs but must be adapted to build on what they already know. Training teachers alone does not remove barriers for communication with students; even with training not all teachers able to communicate openly with students about such issues. To seek out adults when in trouble, students must trust them and this stems both from their individual interactions and from school policies that make it clear that adults are concerned and committed to respond safely and appropriately.

School-based programs can improve recognition of individuals at risk, increase coping skills and appropriate referrals for help. Every school and every child should have access to an appropriate variety of mental health promotion, prevention, early intervention and support programs. Programs should be offered in the context of whole-school approach to mental health promotion. Further development of mental health promotion and suicide prevention programs and resources in schools should give particular consideration to:

- professional development and support around the development of community partnerships— schools can work with Elders and spiritual leaders to promote life and prevent suicide;
- ensuring curriculum, ethos and partnerships are sensitive to the cultural and social diversity of the community—this can be achieved through collaborative partnerships;
- developing linkages between schools, primary care, and social services and other primary prevention and early intervention programs
- insuring the active involvement of teachers, students, parents, Elders and other community members in the development of school-based efforts to promote life and prevent suicide.

(3) Peer Helpers

In surveys, most youth indicate that they when in crisis they would first turn to friends for support. This suggests the importance of peers as crucial links in helping troubled youth find appropriate help. Peers can provide emotional support, convey positive attitudes about mental health services, and steer affected youth toward appropriate sources of intervention.

Systematic screening for suicide in Aboriginal communities, when they are not in crisis, seems inappropriate considering the very high prevalence of suicidal behaviour and the risk of stigmatization in a small community. Measures to encourage help-seeking and peer recognition of distress are likely to be more effective.

Since many at-risk youth are not in school, systematic efforts must be made to engage them in suicide prevention programs. Ways to engage at-risk youth not in school include using peers, Elders and other community members that youth respect as links to preventive services. These can occur in youth clubs or community settings.

(4) Gatekeeper Training

Many youth avoid seeking help for depression, suicidal ideation or other mental health problems because of the stigma of psychiatry or because of a lack of information about effective treatments. Insuring that those trusted adults who youth come into contact with are knowledgeable about the signs and symptoms of distress and available interventions will increase the likelihood that youth find appropriate help. In addition to primary care

or mental health services, this care may include other ‘natural helpers’ and community-based resources. These other helpers must also know when to refer a youth whose distress requires more intensive intervention.

(5) Services and Intervention

Primary care and other health services provide a crucial site for the recognition and treatment of suicidal youth. These services are best suited to detect and treat depression, which may be a precursor to suicidal behaviour. There should be a multidisciplinary set of clinical guidelines or standards pertaining to the management of Aboriginal youth presenting with suicide attempt and deliberate self-harm to primary care or emergency services. Clinicians working in Aboriginal communities or urban settings with a large number of Aboriginal youth in their patient population should be given additional training in detection and treatment of depression, as well as in the recognition of suicidal behavior.

Emergency settings are often the point of contact for youth in crisis, either after a suicide attempt, injury, intoxication or other acute problem. Emergency services should provide prompt mental health assessment by an appropriately qualified, trained and experienced mental health professional with immediate referral to culturally appropriate ongoing care. There should be a clear plan for continuity of care and consistent, active follow-up.

Telephone ‘hotline’ counselling services can play a useful role, in conjunction with other services, by providing a resource for young people at risk, beginning the process of engagement in help-seeking and more effective coping and directing youth to appropriate services. They may help youth through suicidal crises, and, when used for follow-up, can improve the continuity of care provided to individuals at risk. They may be particularly useful in remote regions where there is a lack of local resources and because they allow a degree of privacy or anonymity that may be difficult to insure in small communities. To be most effective, however, they must link with local resources or mobile crisis teams that can provide meaningful follow-up. There should be ongoing training and support of telephone counselling staff including supervision and assessment of performance according to competency standards.

Comprehensive integrated mental health services need to be made available to young people and their families across the country. Health Canada should work in collaboration with professional societies and training programs to expand the range and quality of primary health care services available for Aboriginal youth at risk. Depending on setting and available resources, approaches can include: community-based youth health services; multipurpose youth services; shared care mental health collaborations between primary care and mental health practitioners; and regional crisis and mental health promotion teams.

A multidisciplinary mental health team may not always be available given the distribution of resources, but communities can identify a group of people representing major groups and institutions who provide a local resource. This group can work

preventatively, meeting regularly to discuss issues and develop a plan to address youth needs.

(6) Community Engagement in Suicide Prevention

Community development and support is crucial for sustainable improvement in the mental health of youth and families. The key components of most successful programs for Aboriginal youth seem to be that they are community-based and involve active partnerships across sectors. These partnerships coordinate activities, have a well-worked out protocol to address the issues at hand, and can respond quickly to crises. There is evidence that long-term engagement of community members and maintenance of programs is greater when mental health promotion activities focus on the issues given high priority by local people and when community organizations are strong.

Suicide postvention recognizes the impact of a death by suicide on the bereaved provides support and intervention for those in need. In small Aboriginal communities where many people are closely related, suicides resonate powerfully through the whole community and have far-reaching impact. Strategies for postvention must consider this broad impact. There is only one well-described postvention program but it is widely accepted as a way to respond in times of crisis. Its impact on subsequent suicide is unknown.

(7) Family Support and Early Prevention

A major contributor to suicide in Aboriginal communities is the disruption in families and child-rearing that has come as a result of the transgenerational effects of the residential school system. There is a need to support families. Ultimately, early prevention by supporting perinatal care, parenting of infants, toddlers, and improving family health may have the greatest preventive effect not only for suicide but for many other mental health problems.

Early childhood is an important target for long-term suicide prevention. Early childhood experience is a crucial determinant of long-term mental health, including suicidality. Positive parenting throughout childhood and adolescence can help children grow to healthy, resilient and well-adjusted adults. Culturally appropriate parenting education and support programs should be developed and made available in Aboriginal communities. Again developing such programs must build on existing social structures within communities, and must be consonant with the values and family structures of the community in question. This is most likely to occur when there is intensive community participation at every stage of program development, adaptation and delivery.

(8) Community Development

Any program that serves to increase the prospects for youth through education, training, job creation, and empowerment will likely have positive effects on many aspects of mental health and reduce the risk of suicidal behaviour.

Public health initiatives that focus on communities as well as individuals seem to be most successful. They fit best with the ethos of many Aboriginal communities, and can be easily implanted into existing social settings. Successful community-based initiatives are multi-level, targeting individuals, families, and the community as a whole.

(9) Media

The popular media (TV, radio, Internet, movies) play a powerful role in the lives of youth and portrayals of suicide in sensationalistic ways may have a negative impact, motivating 'copy-cat' suicides. Appropriate reporting of suicide, couple with positive mental health role models, as well as information on help-seeking can have a beneficial impact. Training sessions for the media are important to prevent sensationalist or irresponsible reporting of suicide.

(10) Knowledge Exchange and Research

There is a need to improve communications strategies that support knowledge exchange in suicide prevention. Communities may need assistance in establishing the specific human and material resources necessary to set up appropriate programs and interventions. They may also need assistance in evaluating the success of programs. A national network should be developed for supporting suicide prevention and mental health promotion activities among Aboriginal youth across the country, especially in rural and remote communities. This could be a virtual center organized as a network, with nodes across the country and would include a range of participants from Aboriginal organizations, communities, and practitioners in the policy and practice milieu. This network would be mandated to develop systems for data collection to allow systematic assessment and evaluation of interventions. This would include the collection and analysis of data about suicide and attempted suicide; mental health indicators among young people; service provision and use; as well as risk and protective factors in the community. It also would engage in knowledge exchange activities to insure that the results of evaluation are incorporated into ongoing strategic planning. It would also provide training sessions for the media to insure appropriate reporting of suicide.

Clearly, there is a need for further research to inform suicide prevention, both generally and in Aboriginal populations specifically. Most services currently available to the general population for suicide prevention have not been well tested. This situation is even starker in the Aboriginal population. Funding should be provided to support a program of service development research aimed at identifying innovative strategies for engaging marginalized and alienated Aboriginal young people with health and social services. Key topics for further exploration should include: models of service provision targeting young

people with mental health; problems including personality disorders and other complex problems; and the involvement of families and care givers.

APPENDIX

Appendix A. Summary of Programs with Evaluation

Approximately 30 programs are described in this Appendix. The level of evidence of their effectiveness has been rated using the following criteria:

- 1) Randomized control trial or controlled replication of program in more than one community/school
- 2) Cohort study, case control, quasi-experimental
- 3) Ecological study, quantitative or qualitative with scientific methodology
- 4) Opinion based descriptive report or informal surveys of user satisfaction, internal evaluation process

The strategies are organized according to level and type of intervention:

Primary Prevention (universal)

- 1a) community awareness, education, public health, increasing community wellbeing
- 1b) school based education, curriculum based program
- 1c) gatekeeper, peer helper training, workshops
- 1d) organized activities
- 1e) skill-building program
- 1f) guidelines, protocols published

Secondary Prevention (selective)

- 2a) Screening
- 2b) Intervention/counselling
- 2c) Help line/ Crisis team/ drop-in center
- 2d) Training mental health workers

Tertiary Prevention (indicated)

- 3a) Postvention

The 10 programs with a level of evidence of 1 to 3 are described in greater detail.

Note: The source “NAMHR” indicates that information was drawn from database previously prepared by our group for Health Canada and available for the website of the National Network for Aboriginal Mental Health Research:

www.namhr.ca/resources/programs

Project (Source)	Location	Cultural adaptation	Strategies Used	Number of people reached	Level of evidence
Powell River (Hinbest, 2001)	Powell River B.C. Semi-isolated Pop: 21,000 850 band members	Community based initiative	1a, 1c*, 1d	N/A	3
Prince Rupert (Hinbest, 2001)	Prince Rupert Northern B.C. Rural Pop served: 20,000 including First Nation communities	Community based initiative	1c	N/A	3
Strikine Region (Hinbest, 2001)	Strikine Region North-West B.C. Including several First Nation communities (Tahltan and Kaska) Remote , Pop: 2,000	Community based initiative	1a, 1b, 1c*, 1d, 2c	N/A	3
Williams Lake (Hinbest, 2001)	Central B.C. Including Canoe and Dog Creek Indian Bands Rural Pop served: 22,000	Community based initiative	1a, 1c	N/A	3
Aroland First Nation Suicide Prevention Program (NAMHR database)	Ojibwa and Oji-Cree First Nation Thunderbay District, Ontario Rural, Pop: 350	Traditional ceremonies	1a	350	N/A
Beaverhouse First Nation Suicide Prevention Program (NAMHR database)	Kirkland lake, Ontario Ojibway First Nation Remote. Pop: 160	Sweatlodge ceremonies	1a, 2c	260	4

Project (Source)	Location	Cultural adaptation	Strategies Used	Number of people reached	Level of evidence
Ginoogaming First Nation (NAMHR database)	Ojibway First Nation Long Lac, Ontario Remote Pop: 773 (on-reserve pop: 168)	Sweatlodge ceremonies	1a, 1c	N/A	4
North Spirit Lake First Nation Suicide Prevention Program (NAMHR database)	Oji-Cree First Nation North Spirit Lake, Ontario Remote, Pop: 259	Elders are involved in counselling	1a, 1c, 2b	N/A	N/A
Dilico Ojibway Child and Family Services-Suicide Prevention Program (NAMHR database)	Nishnawbe Aski Nation Thunder Bay district, Ontario Rural Pop served: 15 000	Traditional ceremonies	1c, 2b SEE IF MORE IN WHITE	N/A	N/A

(White & Jodoin, 2003) Helping to Heal (NAMHR database)	Nuu-chah-nult First Nation Port Alberni B.C. Pop served: 5000	Traditional ceremonies	1c, 2c	N/A	4 (evaluated by AHF)
Alaskan Youth Suicide Prevention Projects	Alaskan Communities	Traditional activities offered depending on community	1a, 2a, 2b, 2c, 2d	N/A	N/A
American Zuni life skills LaFramboise (1994, 1995, 1996, 2006, 2007a 2007b, 200b; Howard- Pitney, 1992; May 2005)	First implemented in a high school of a Zuni Pueblo on an American Indian reservation Pop: 9000 tribal members	Curriculum adapted for over 20 native tribes. Traditional activities, beliefs and values incorporated	1b	Has been replicated in 20 aboriginal communities	2

Project (Source)	Location	Cultural adaptation	Strategies Used	Number of people reached	Level of evidence
CARE (Care, Assess, Respond, Empower) (Eggert, 1995, 2002, 2004, 2007; Randell, 2001;Thompson, 1999, 2001)	Various locations in the United States	Adapted for Native communities	2a, 2b	Over 2500 individuals	1

Community Activity Programs through Education-indigenous Police Citizen Youth Club http://www.livingisforeveryone.com.au/Community-Activity-Programs-through-Education%E2%80%93Indigenous-Police-Citizen-Youth-Club-Cape-PCYC.html	Four communities in Queensland, Australia Yarrabah Napranum Wujul Wujul Hope Vale	Built in partnership with indigenous communities	1d	N/A	4
Early Intervention Program for Aboriginal Youth http://www.aifs.gov.au/nch/pubs/reports/telstra2/schools.pdf	Selected regions in Western and Northern Australia	Consultations with local communities and elders, Aboriginal specific issues Validated across aboriginal communities	1d , 2a, 2b, 2d, 2b	N/A	N/A
From Harm to Calm http://www.livingisforeveryone.com.au/From-harm-to-calm-promoting-help-seeking-in-young-people-who-self-harm.html	Nilumbik Community Health Services, Victoria, Australia Serving 12-18 year olds from Nilumbik, Banyule and Darebin communities		1b (training teachers) 1c, 2b, 1b (school workshops)	N/A	3
Living Works-SafeTALK http://www.livingisforeveryone.com.au/Lifeforce-suicide-prevention-program.html	Pilbara, Australia Various remote indigenous communities	Local needs analysis is performed to adapt strategy for each community	1c	N/A	4

Project (Source)	Location	Cultural adaptation	Strategies Used	Number of people reached	Level of evidence
Suicide, QUESIONS, Answers and Resources (SQUARE) www.livingisforeveryone.com.au/Suicide-QUESTIONS-Answers-and-Resources--square.html	National program, Australia	Indigenous communities have partnered the project, how program is adapted to aboriginal communities N/A	1a, 2d	N/A	3
Building Resilience in the Central Highlands B-RICH www.livingisforeveryone.com.au/Building-Resilience-In-the-Central-	Remote and Rural communities in the Central Highlands Tasmania, Australia	N/A	1a, 1c, 1d Training teachers	N/A	2

Highlands-B-RICH.html We know our strengths www.livingisforeveryone.com.au/We-Know-Our-Strengths.html	Remote aboriginal communities in Northern territory of Titjikala, Mt. Liebig and Santa Teresa, Australia	Community activities promoted differ as a function of cultural context	1a,1f	N/A	3 or 4 emailed to see if get more info N/A
Gathering Circle White (2003)	10 Native communities neighbouring Thunder Bay, Ontario Rural and remote	Promotes healing through native culture, language, spirituality, ceremonies	1a	N/A	N/A
Thunder Bay Junior Canadian Rangers (White & Jodoin, 2003) www.rangers.dnd.ca	79 Remote and Isolated	Traditional activities, learning about native spirituality	1a, 1d	2000	N/A
'Namgis Health Center (White & Jodoin, 2003)	Cormorant Island, B.C. Pop: 1400 On reserve Pop: 740	Cultural camps	1a	N/A	Being implemented

Project (Source)	Location	Cultural adaptation	Strategies Used	Number of people reached	Level of evidence
Peer Helpers of the Native Alcohol and Drug Abuse Counselling Association	Eskasoni, Nova Scotia	N/A	1c	160 youth from 12 first nation communities	4

(White & Jodoin, 2003) The White Stone Project (White & Jodoin, 2003) Center for suicide prevention: http://www.suicideinfo.ca/csp/go.aspx?tabid=140 http://whitestone.suicideinfo.ca/	Various locations in Canada where aboriginal and Inuit youth and community service providers meet for training	N/A	1a, 1c, 1e	85 participants in 24 communities	3 or 4
Young People's Forum Westerman, http://www.gtp.com.au/ips/inewsfiles/P10.pdf	Kimberley and NorthWest regions of Western Australia	Aboriginal specific suicide prevention program	1c, 1e, 2a, 2b Objectives 1a, 1c, 2d, 3a	212	2
Yarrabah Family Life Promotion Program (Mitchell, 2000; Hunter 1999)	Yarrabah, Queensland, Australia Aboriginal community Rural, Pop: 3000	Created and monitored by community; based on socio-historical factors associated with suicidal risk	1a, 1c, 1d, 1e, 1f, 2b, 2c, 2d, 3a	Based on epidemiological survey of suicide rates	3
Mind Matters (Wyn, Cahill, Holdsworth, Rowling, & Carson, 2000) www.mindmatters.edu.au/verve/_resources/atsi_principles.pdf	Piloted in 24 school districts and adapted for various Aboriginal and Torres Strait communities	Program has been adapted for aboriginal and Torres Strait Islanders working	1b, 1e 2b,	N/A	3
<i>Wujal Wujal: Working the strengths</i> (Gray & Wallace, 1999)	Wujal Wujal, Cape York, Australia, Pop: 400 Remote-Isolated	Traditional activities and cultural activities with elders	1c, 1d, 2b, 2d,	N/A	4

Appendix B. Promising Programs and Interventions

1. Alaska Youth Suicide Prevention Project FY 2009 - 2011
2. American Indian Life Skills Development/Zuni Life Skills Development
3. CARE (Care, Assess, Respond, Empower)
4. Early Intervention Program for Aboriginal Youth
5. From Harm to Calm
6. Suicide, Questions, Answers and Resources (SQUARE)
7. Building Resilience In the Central Highlands (B-RICH)
8. White Stone: Aboriginal Youth Suicide Prevention for Youth Educators
9. Suicide Prevention in Aboriginal Communities
10. Applied Suicide Intervention Skills Training Workshop (ASIST)
11. Alberta Injury Prevention Model

1. Alaska Youth Suicide Prevention Project FY 2009 – 2011

http://www.hss.state.ak.us/dbh/prevention/docs/200811_aysp_grant.pdf	
Objectives	<ul style="list-style-type: none"> - to increase understanding that suicide can be prevented; - to promote the idea of healthy socio-emotional development among youth; - to extend the availability and access to behavioural health services to regions where rates of suicide are extremely high; - to stimulate research on suicide prevention and diversity of evaluation methods; - to reduce suicide behaviour among Alaska's youth.
Setting	Alaska (regions with high levels of suicide)
Target Population or Groups	<ul style="list-style-type: none"> - Alaska Native male teenagers - Young military veterans (age range 18 to 24) - Young teenage girls with high risk for depression - Bisexual, transgender, gay and lesbian youth - Youth in residential/institutional settings such as detention or foster care
Focus	Develop and enhance specific suicide prevention programs based on each region's youth suicide rate.
Resources	Regional Suicide Prevention Teams (RSPT) include persons from: community organizations for youth; mental health services providers; churches; parent groups; juvenile justice; child protection services; schools districts
Key Components	Regional suicide prevention teams will be responsible for implementation of the community-based planning model. This model includes early prevention, intervention and postvention
Approach	The RSPT's that will be created will target the community-based planning model implementation and Strategic Prevention Framework (SPF). These will include early prevention, intervention and postvention strategies matching cultural responsiveness and sustainable approach.
Cultural Adaptation	This program in collaboration with Maniilaq's project Life in Kotzebue region aims to reduce youth suicide in northwest Arctic region.
Evaluation	Conducted by University of Alaska Anchorage, Behavioural Health Research Services and will include ethnographic analysis with key informant interviews, regional teams program evaluation assistance, cross site evaluation participation.
Funding	Federal Garrett Lee Smith Memorial Act (youth suicide prevention), (Division of Behavioural Health, Prevention and Early Intervention Services). The grant is \$5000,000/year for three years (9/30/2008 to 9/29/2011).
Contact Information	James Gallanos, Project Coordinator - (907)465-8536; (TF) 1-877-393-2287; e-mail: james.gallanos@alaska.gov

2. American Indian Life Skills Development/Zuni Life Skills Development

http://www.nrepp.samhsa.gov/programfulldetails.asp?PROGRAM_ID=118#description http://www.findyouthinfo.gov/cf_pages/programdetail.cfm?id=635 LaFromboise (2006)	
Objectives	<ul style="list-style-type: none"> - mental health promotion and suicide prevention among American Indians; - self-esteem building and problem-solving skills developing; - working on elimination of self-destructive behavior by helping adolescents to identify their emotions and stress.
Setting	Rural and/or frontier, School, Tribal, Urban
Target Population	Adolescents within the age range from 13 to 17, both females and males, targeting American Indian or Alaskan Natives.
Focus	Reducing suicide risk and improving protective factors.
Resources	3-day trainings for school staff, with an approximate cost of \$3,000.
Key Components	<p>Organized role-play scenarios of “helpers” of a person who has suicidal behaviour. These are videotaped and then discussed, analyzing the problem-solving skills.</p> <p>The Zuni life Skills Development program was first implemented in an American Indian reservation (150 miles west of Albuquerque, New Mexico) with about 9,000 tribal members and involved high school students in the Zuni Pueblo;</p> <ul style="list-style-type: none"> - The American Indian Life Skills Development curriculum has been also performed with a number of other tribes (as an adaptation of the Zuni version).
Approach	Trainers need not be Native Americans but should be able to speak to participants in accessible language and use approaches that fit with daily tribal activities, beliefs and values. The curriculum coordinator is usually a school counsellor.
Cultural Adaptation	The curriculum was been developed so that it can be applied to in a culturally specific way. For example, the role of a suicidal person will be played by the American Indian University students as Zuni tradition forbids students to play such a role.
Training	<p>The training is delivered during a period of 30 weeks during the school year, 3 times per week, and covers the following topics:</p> <ul style="list-style-type: none"> • develop self-efficacy; • avoiding self-destructing and; • improve own skills regarding helpful and harmful effects of certain behaviours, targeting on suicide prevention.
Evaluation	Evaluation was conducted by two independent judges who were trained as a team for 18 hours.
Contact Information	<p>Teresa LaFromboise, Ph.D., Associate Professor Stanford University; 485 Lasuen Mall; Stanford, CA 94305; Phone: (650) 723-2109; Fax: (650) 725-7412 E-mail: lafrom@stanford.edu Web site: http://griefnet.org/library/reviews/a/amerindianskR.html</p>

3. CARE (Care, Assess, Respond, Empower)

http://www.nrepp.samhsa.gov/programfulldetails.asp?PROGRAM_ID=225	
Objectives	<ul style="list-style-type: none"> - to reduce suicidal behavior and related risk factors in the target group; - to raise personal and social best coping qualities
Setting	<ul style="list-style-type: none"> - School in suburban, tribal, and urban settings - Health care clinics
Target Population or Groups	Adolescents within the age range from 13 to 17 and young adults from 18 to 25, both females and males, targeting American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, White.
Problem Focus	<ul style="list-style-type: none"> - assessing adolescent's needs; - provide immediate support; - being the adolescent key issue in communication between school personnel and the parent (or guardian of choice).
Resources	<p>Staff that have completed the CARE implementation training program and certification process:</p> <ul style="list-style-type: none"> - school or advanced-practice nurses; - counsellors and psychologists; - social workers.
Key Components	<p>Has two components:</p> <p>(i) 2-hour suicide assessment interview that is one-to-one computer-assisted</p> <p>(ii) 2-hour motivational counselling (plus social support intervention)</p> <p>It also includes: a follow-up reassessment to identify the suicide risk and the presence of protective factors; sessions of motivational counselling during nine weeks after the initial one</p>
Approach	The counselling session has a specific design based on empathy and support, so as the participant could freely share personal information and gain reinforcement and positive coping skills and help-seeking behaviours.
Cultural Adaptation	The program has been adapted for Native American and Hispanic students.
Evaluation	“Brief Suicide Risk Behavior Scale” and “High School Questionnaire: Profile of Experiences” were used to measure the frequency of suicide thoughts (i.e. frequency of suicidal ideation, frequency of direct suicide threats, and number of suicide attempts in the past month). Results have shown a decrease in suicide risk factors. No gender differences were seen.
Contact Information	<p>Information about implementation: Beth McNamara, M.S.W., Director of Programs and Trainers Reconnecting Youth, Inc.; P.O. Box 20343; Seattle, WA 98102; Phone: (425) 861-1177; Fax: (206) 726-6049; E-mail: beth@reconnectingyouth.com</p> <p>Leona L. Eggert, Ph.D., R.N., FAAN, President and Owner Reconnecting Youth, Inc.; P.O. Box 20343; Seattle, WA 98102; Phone: (425) 861-1177; Fax: (425) 861-8071; E-mail: leona@reconnectingyouth.com</p>

4. Early Intervention Program for Aboriginal Youth

http://www.aifs.gov.au/nch/pubs/reports/telstra2/schools.pdf	
Objectives	<ul style="list-style-type: none"> - promote professional development of teachers, mental health professionals and key community members; - identify Aboriginal young people who are at risk of developing self-harm behaviour; - pilot a culturally specific early intervention program to foster resilience among Aboriginal youth.
Setting	Regions across Western Australia including the northwest, west Kimberley, Goldfields, and two regions in the Northern Territory.
Target	Aboriginal youth and school age children
Problem Focus	<ul style="list-style-type: none"> - train health professionals and teachers to be able to recognize depression and suicidal behavior among Aboriginal students and provide appropriate help; - reduce high-risk behavior among Indigenous youth by assisting them; - decrease the risk of development of depression and suicide among Indigenous youth;
Resources	Both Aboriginal community and staff from Curtin University were involved, with additional support from non-government organizations. A research assistant developed training materials and content.
Key Components	<ul style="list-style-type: none"> - develop and pilot a sustainable and culturally appropriate program for Indigenous youth who are at risk of suicidal behaviour; - ensure that the project is Aboriginal focused by consulting with local communities and elders; - work with Aboriginal parents who have children at risk of suicidal behaviour; - to augment the focus on existing safety behaviours among Indigenous youth; - to train Indigenous and non-Indigenous mental health providers to use this program appropriately;
Approach	The key part of implementing the project is to educate teachers and health professionals to be able to recognize and respond appropriately to signs of depression or suicidal feelings among Aboriginal students.
Cultural Adaptation	This project is designed specifically to identify Indigenous youth who are at risk of self-harming so it is considered a unique cultural development. The modules have been conducted involving Aboriginal youth. Consultation with Aboriginal communities was used on the first stages of the project implementation.
Training	A research assistant was employed to conduct professional development sessions with local service providers including mental health professionals, teachers, and community as a whole. The training for community service providers and youth focused on cultural awareness, anxiety, depression and suicide. Training for teachers focused on how the symptoms and conditions are expressed by students of different cultural backgrounds.
Evaluation	Evaluation has shown that there is a bigger need in Indigenous psychologists and in the web-based services, so as to improve access for people who live in total and remote areas. Medication and behavioral interventions need to be culturally appropriate.
Contact Information	Dr. Tracy Westerman, managing director, indigenous psychological services. Ph (08) 9362 2036; Email: tracyw@ips.iinet.net.au

5. From Harm to Calm

http://www.livingisforeveryone.com.au/From-harm-to-calm-promoting-help-seeking-in-young-people-who-self-harm.html	
Objectives	To educate young people who have self-harm behaviour to seek appropriate help
Setting	Nillumbik Community Health Service in Victoria, Nillumbik, Banyule and Darebin communities.
Target	Young people aged 10-18 and their families
Problem Focus	Some issues of the program have been already raised in the first Phase in 2003. In 2007, as the second Phase it became a part of the National Suicide Prevention Strategy.
Resources	There are booklets and research reports available for youth and parents or carers, here: http://www.nchs.org.au/youthservices.shtml
Key Components	<p>The program has the following components:</p> <ul style="list-style-type: none"> - to provide one-to-one counselling support; - to work in small groups using therapy booklets with young people who experience self-harm behaviour, parents and carers who are concerned about young people experiencing self-harm; - school workshop sessions, with teacher information sessions, providing do's and don'ts and early intervention resources; parent information sessions. - research on incidence of self-harm in primary school-aged children
Approach	action research; utilitarian focus; close feedback; individual and group work
Cultural Adaptation	
Training	School workshop information sessions have been developed and conducted for teachers and parents, providing information on what to do and not to do in situations when a young person develops depression or self-harm behaviour.
Evaluation	Being a 'research action' project it requires comprehensive consultation from different stakeholders (i.e. consistent evaluation).
Funding	
Contact Information	Nillumbik Community Health Service on 03 9430 9100 http://www.nchs.org.au/publications.shtml

6. Suicide, Questions, Answers and Resources (SQUARE)

http://www.livingisforeveryone.com.au/Suicide-Questions-Answers-and-Resources--square.html	
Objectives	To promote assessment and management of patients with suicide risk behavior in primary health care.
Setting	At the start only in South Australia, by the end of 2008 will be national.
Target Population or Groups	<ul style="list-style-type: none"> - general practitioners; - health and community workers; - families and friends; - family neighbours; - specialists working in the field of mental health.
Problem Focus	The key component of the program is the collaborative approach that should entail mainly community-based services.
Resources	<ul style="list-style-type: none"> - foundations for effective practice - a desk top guide for health workers - a CD-ROM with information and video clips - a series of context specific booklets (e.g. general practice, emergency departments, mental health services, community health services)
Key Components	<ul style="list-style-type: none"> - to evaluate and prioritize the needs of community members so as to develop appropriate training structure; - to work with people who come into direct contact with community members who exhibit self-harm behavior and are at risk of suicide; - to develop specialized training programs; - to conduct follow up training sessions explaining how to better refer people at high suicide risk;
Approach	Assure that the training sessions and all information materials will be enough clear to help developing appropriate skills in recognizing suicidal behavior
Cultural Adaptation	
Training	The training modules include information on the following aspects: <ul style="list-style-type: none"> - suicide history and context; - statistics and myths about suicide; - key points for suicide averting; - commitment, orientation and follow up;
Evaluation	At the beginning all the program resources underwent external evaluation for quality assurance. Presently there is an internal evaluation ongoing and it includes focus group interviews and surveys.
Funding	Funded by the Department of Health and Ageing and the Department of Health. Partners in the development included Mental Health Services, Divisions of General Practice, DASSA, Emergency Services, Community Health and Hospitals
Contact Information	Email: square@rasa.org.au http://square.org.au/MenuBar/resources/printablepdfcopiesofformsandguides.aspx

7. Building Resilience In the Central Highlands (B-RICH)

www.livingisforeveryone.com.au/Building-Resilience-In-the-Central-Highlands-B-RICH.html	
Objectives	<ul style="list-style-type: none"> - to increase resilience in young people from the local schools; - to increase community, teachers' and parents' knowledge of suicide prevention
Setting	Central Highlands of Tasmania
Target Population or Groups	Community, teachers, youth (12–15 years), parents.
Problem Focus	To develop good prevention strategies and early intervention skills. Educate and support parents of young people who may or express suicidal behaviour and train teachers who work with them.
Resources	
Key Components	<ul style="list-style-type: none"> - to hold workshops on suicide awareness and prevention targeting local community groups, members and health workers; - to develop and lead trainings and workshops for teachers; - to work with young people building on their social skills and confidence; - to provide support and develop training for parents of young people;
Approach	
Cultural Adaptation	
Training	<ul style="list-style-type: none"> - information sessions and workshops on suicide awareness and prevention for a variety of target groups; - a variety of sessions on wellbeing and health held for population; - Aquaculture and Fly Fishing Program for students from grades 9 and 10; - Youth Transitions Project; - Two courses on Mental Health First Aid for community members and health workers; - Training sessions for teachers discussing specific students' behaviour; - A community forum discussing best approaches of suicide prevention;
Evaluation	<p>Questionnaires and feedback forms were used to survey the participants both pre and post activity.</p> <p>Results have shown that there should be more time allocated working with youth, especially those in rural and remote areas.</p>
Funding	Training was held under the umbrella organization Highlands Incorporated – Central Highlands Tasmania.
Contact Information	Tracey Turale tracey.turale@dhhs.tas.gov.au

8. White Stone: Aboriginal Youth Suicide Prevention for Youth Educators

whitestone.suicideinfo.ca/about_whitestone.html	
Objectives	Teach and train young adults and community caregivers about suicide prevention and the ways to distribute this information in the community.
Setting	Workshops in urban, rural and remote communities
Target Population or Groups	<ul style="list-style-type: none"> - 85 participants from 24 communities; - youth over the age of 16 without any risk of suicide behaviour; - Aboriginal and Inuit youth 18-25 years of age who have been identified as leaders in their communities; - teachers, nurses, police officers and other persons who work and interact with young population;
Problem Focus	<ul style="list-style-type: none"> - to educate young aboriginal adults and community caregivers about suicide prevention; - to develop and held training sessions on suicide prevention to youth in their home communities;
Resources	
Key Components	Attempts to create local teams of young adults who will be supportive to each other and could create at least one community organization. The teams should be lead by community-based service providers, such as: teachers, nurses, police officers and other persons who work and interact with young population.
Approach	Community-based service providers, such as: teachers, nurses, police officers and other persons, who work and interact with young population, should accompany the new trained community trainers in their work.
Cultural Adaptation	
Training	<p>Training for Youth Educators – participants to deliver education sessions to youth in their specific communities. The training lasts for five days and is based on a 16 hours curriculum that includes talk regarding the suicide common beliefs, how does a suicidal person behave and what is the role of cultural background, how to identify a risky behavior and the primary intervention tactics in this case (shown through simulations). These include: “simulations, individual and group presentations, pen and paper activities, group discussions, personal reflection, talking circle, stress busters, random acts of leadership”.</p> <p>http://whitestone.suicideinfo.ca/about_whitestone.html.</p>
Evaluation	Includes assessing all the participants so as to have their feedback regarding the experience they have had and did they do right when recognizing suicide behavior.
Contact Information	<p>For More Information Contact: Suicide Prevention Training Programs #320, 1202 Centre Street SE Calgary, AB T2G 5A5 Phone: (403) 245-3900 Fax: (403) 245-0299 Email: sptp@suicideinfo.ca Web: www.suicideinfo.ca</p>

9. Suicide Prevention in Aboriginal Communities: A Best Practice Model of Community Driven Prevention

www.indigenoupsychservices.com.au	
Objectives	To reduce the number of Aboriginal persons who make attempts or commit suicide.
Setting	Roebourne, Derby and Kalgoorlie (rural areas).
Target Population or Groups	212 people. Of these, 85% have identified themselves as Aboriginal.
Problem Focus	
Resources	- Dr. Tracy Westerman, an Aboriginal Psychologist and head of Indigenous Psychological Services (IPS).
Key Components	The program has four phases: <ul style="list-style-type: none"> - identify the local needs; <ul style="list-style-type: none"> general training for the stakeholders; - strengthening the skills that have been already gained; - process and impact evaluations;
Approach	To work on the efficacy of existing programs in this field. The content should be culturally-based and properly delivered; it should target all the stakeholders, including the youth, not only the service providers; build on community capacity and promote changes; the role of local Aboriginal young people should be of a very big importance, because they are the key stakeholders.
Cultural Adaptation	The program recognizes that Aboriginal youth have a high rate of suicide behaviour and that most are aware that some of their friends are at risk. The program utilizes a culturally validated assessment tool for identifying the trigger of suicide, the Westerman Aboriginal Symptom Checklist –Youth (WASC-Y).
Training	For stakeholders and included discussions on: such issues as myths and beliefs about suicide; the triggers of suicide, the danger of depression and how to identify the suicide behavior; how to work with young teens while talking about the suicide and how to take correct measures so as to avoid it to occur; For teens with higher suicide risk (identified by screening with the Westerman Aboriginal Symptom Checklist – Youth (WASC-Y) (Westerman, 2003b)) training included discussions on: how to build cultural resiliency and identity; how to survive acculturation and the associated stresses.
Evaluation	Was regionally focused and covered the skills, knowledge, capacity and intentions to help. Results have shown increased feeling of better problem knowledge, a higher level of confidence when referring a person to skilled professionals, even that the training participants think they have enough knowledge so as to assist the persons by themselves.
Funding	This project has been funded by the Office of Aboriginal Health (HDWA) and developed by Indigenous Psychological Services (IPS), a private consultancy service based in Perth, Western Australia.
Contact Information	IPS website– www.indigenoupsychservices.com.au Telephone: (08) 9362 2036

10. Applied suicide intervention skills training workshop (ASIST)

http://www.livingworks.net/docs/ASISTNrwyDscrptn.pdf	
Objectives	To build the capacity to identify suicide behaviour as soon as possible, to assist acute suicidal crises and to refer correctly.
Setting	Canada, the USA, Australia and Norway
Target Population or Groups	The health-care sector, the social-services authorities, the police, clergy, colleges, schools, the military and non-governmental organizations.
Problem Focus	Focus is on increasing knowledge as the participants already have many skills and experience. The importance of interdisciplinary and inter-agency cooperation is stressed.
Resources	Trainers are persons who hold advanced degrees in social work, counselling or psychology and are certified by Living Works. Inc as accomplished practitioners in suicide prevention, intervention and postvention.
Key Components	The program stressed on the attitudes towards a person with suicide thoughts or behavior, knowledge about the triggers and signs of a suicide behavior, and intervention in a crisis.
Approach	The training focused on role playing to practice intervention in a suicide behavior or playing the person with suicide behavior. Essential is that everybody plays both roles.
Cultural Adaptation	
Training	Represents a two-day intensive, interactive and practice-dominated workshop that was developed and held for caregivers to help them recognize and estimate the risk of a suicide and to learn how to intervene in an emergency case of suicide risk.
Evaluation	Results have shown good results in increased knowledge and behavioural even among participants who already had a good level of knowledge and skills.
Funding	
Contact Information	http://www.livingworks.net/docs/ASISTNrwyDscrptn.pdf

11. Aboriginal Injury Prevention Model

http://www.acicr.ualberta.ca/pages/documents/Aboriginal Injury Prevention Model Alberta.pdf	
Objectives	<ul style="list-style-type: none"> - Education: (1) increase awareness and knowledge about the preventability of injuries; (2) increase injury prevention capacity among Aboriginal practitioners; - Communication: (1) develop culturally relevant social marketing campaigns; (2) develop structured communication among administrators and service providers; - Partnership: (1) develop injury prevention working partnership, networks and linkages. - Research and data: (1) develop data gathering tools and mechanisms at community and regional levels.
Setting	Alberta, Canada
Target Population or Groups	<ul style="list-style-type: none"> - Urban and rural Aboriginal organizations; - Métis Settlement communities; - Government and non-government organizations serving Aboriginal populations; - Injury prevention stakeholders from several health regions (Chinook Health Region, Calgary Health Region, Capital Health, Aspen Regional Health Authority)
Problem Focus	<ul style="list-style-type: none"> - giving focus and direction for injury prevention activities and resources in Alberta; - working partnerships promotion that support culturally relevant and self-determined action on injury at provincial, regional and local levels; - capacity development for planning and delivery of targeted injury prevention services and programming.
Resources	<ul style="list-style-type: none"> - the Alberta Centre for Injury Control and Research (ACICR); - the Project Advisory Group; - the target population; - the project staff.
Key Components	<ul style="list-style-type: none"> - holistic view of health associated with Aboriginal peoples is aligned with the population health approach and linked to the determinants of health as they relate to health disparities; - framework development process to assist in information gathering and knowledge development on the range of determinants related to injury; - process and development of the framework defined by the target population; - development of sustained working relationships and a long term vision for action would be supported by the project.
Approach	<p>The development of the project was a collaborative process undertaken over a 15-month period (January 2006 to March 2007). Its development was guided by the Urban Aboriginal and Rural Métis Settlement Injury Prevention Working Group. The process of development included an environmental scan of current injury prevention activities and focus group meetings. Obtained information was synthesized and reviewed by the working group and used to develop a model for action.</p>
Cultural Adaptation	<p>The model places emphasis on a holistic approach to Aboriginal people. It represents a <i>guide for action</i> on injury affecting urban and rural Métis, First Nations, and Inuit people, as a significant proportion of Aboriginal people live and work in urban and rural communities.</p>

Training	The model recommends developing and providing injury prevention training opportunities for Aboriginal practitioners.
Evaluation	Built on a continuing feedback process undertaken during the project. This included project debriefings, focus group information gathering, and round table feedback.
Funding	The Steering Group will work to secure funding and partnership support to advance the vision of Safe and Health Aboriginal People. Given ACICR's provincial mandate to work in partnership with all stakeholders to reduce injuries, the Centre will continue to actively support the coordination of efforts for this collaborative initiative.
Contact Information	Alberta Centre for Injury Control & Research School of Public Health, University of Alberta, 4075 RTF, 8308-114 Street, Edmonton, Alberta Canada T6G 2E1; Phone: (780) 492-6019; Fax: (780) 492-7154; Email: acicr@ualberta.ca

Appendix C. Consultants

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