American Indian and Alaska Native Mental Health Research

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EDITORIAL

This issue marks the completion of the first volume of *American Indian and Alaska Native Mental Health Research.* As Shore notes in the preface, it focuses on one of the most pressing concerns today in Indian and Native communities: adolescent suicide. A special thanks is extended to him for his introductory remarks, which are especially fitting given his important role in helping to recast our thinking about suicide among Indian and Native people. We also are grateful to the contributors--Neligh, Claymore, Bechtold, Forbes and Van Der Hyde, and DeBruyn, Hymbaugh, and Valdez--who represent a wide range of public and mental health interests, including psychiatry, sociology, medical anthropology, clinical psychology, social work, epidemiology, and planning. It required extra effort to find time in the midst of their demanding clinical and program responsibilities to share these experiences with us.

As we bring this volume to a close, it is appropriate to acknowledge the contributions of a number of other individuals. Rosella Moseley, the recent past Journal Manager, left the Center in December, 1987, to assume another position in the Pacific Northwest. Her enthusiasm and energy are missed. Rosella's son, Marc Moseley, a talented young graphic artist, developed the major visual theme of the journal and other Center publications. Alice Feldman has served as a consultant throughout this first year of operation, playing a significant role in the initial formatting, printing, distribution, and marketing of the journal. Susan Thornton and Lisa Rush, both experienced wordsmiths, have provided valuable consultation on the technical aspects of copy editing. Debbie Armijo and Carol Meoni diligently entered (and sometimes re-entered) the text into word processing files, translating nearly indecipherable editorial marks into sound manuscript revisions. Audrey County and Marjorie McKee continue to save us time, energy, an even some frustration in finding our way through the bureaucratic maze of state purchasing regulations that govern just about every phase of this effort. Finally, we wish to thank our professional colleagues who reviewed manuscripts submitted for publication. They found time in their busy schedules to provide incisive, yet constructive critiques of the works forwarded to us. These individuals include: Drs. Anna Baron, Fred Beauvais, Donald Bechtold, Thomas Crowley, Steven Dilts, Norman Dinges, Candace Fleming, Robert Freedman, Dorothy Ghodes, Deborah Jones-Saumty, Sandra Joos, Judith Jordan, Jerrold Levy, Carol Lujan, Gordon Neligh, Ron Peters, Joseph Pine, Jay Scully, James Shore, Pat Silk-Walker, Philip Somervell, Joseph Trimble, Dale Walker, Michael Weissberg, and Joseph Westermeyer. Thank you all.

Spero M. Manson, PhD
Editor-in-Chief

INTRODUCTION

Suicide and self-destructive behaviors among American Indians and Alaska Natives, particularly adolescents, are issues of serious public health concern. The average suicide rate for American Indians and Alaska Natives from 1980-82 was 19.9 per 100,000, which was 1.7 times the rate for the nation as a whole. Suicide rates for Indians and Natives ages 10-14, 15-19, and 20-24 were considerably higher than national averages, specifically, 2.8, 2.4, and 2.3 times greater. Indian suicide patterns are more common among adolescents and young adults, especially for males. From the more than 40 studies published on American Indian and Alaska Native suicide, several general patterns can be described. Suicides are most likely to occur among males, to have been associated with heavy alcohol use and abuse, and to be carried out by highly lethal means such as guns or hanging. In addition, the victims are more likely to come from tribal groups with loose social integration as a part of their cultural tradition, cultures which emphasize a high degree of individuality, and ones that are undergoing the most rapid acculturation pressures and socioeconomic change.

This issue presents a new and diverse set of reports that add to our insights concerning risks, associated socioeconomic and health factors, and patterns of completed and attempted suicides. The chapters emphasize prevention strategies, provide an example of a public health approach on individual reservations and throughout the Indian Health Service, and analyze patterns of suicide, and suicide attempts. The contributors, Neligh, Claymore, Bechtold, Forbes, DeBruyn, and colleagues, represent a spectrum of dedicated individuals who are studying this serious problem from the points of view of health providers, administrators, researchers, and program developers.

Neligh's chapter on prevention strategies that can be applied to suicide among American Indians provides a comprehensive review and proposes a new model for identifying and intervening with high-risk individuals. He offers a conceptual framework to identify disorders that may be associated with self-destructive behaviors in three categories: a) disorders that run a time-limited course and are readily treatable, but which pose a substantial short-term risk for suicide; b) disorders with a chronic risk of suicide that need specialist attention and long-term follow-up to decrease the risk; and c) disorders that increase suicidal risk for an otherwise low-risk population such as situational stress with alcohol abuse. His clear distinction of levels of prevention intervention and systems analysis for points of public health intervention is a valuable framework for the remaining chapters.

Claymore reports an analysis of Indian Health Service medical records of suicide attempts and completed suicides from a Sioux reservation. Her methodology is straightforward, has application to all Indian Health Service units, and adds to our understanding of the high-risk profiles and the cultural and tribal specificity for suicide patterns and risk groups.

Bechtold adds to our understanding of Indian adolescent suicide epidemics by focusing on the cluster pattern. He specifically reports the clustering of an adolescent suicide epidemic in a Plains Indian community and demonstrates the significant relationships among the victims. His observations include cultural factors which might reinforce self-destructive behavior among high-risk individuals. The article also provides important examples of behavioral modeling and reinforcement that can accelerate the contagion for self-destructive behavior.

Forbes and Van Der Hyde present a regional study of suicide in Alaska from 1978 to 1984. Their data refute recent reports that the Alaska Native suicide rate has declined dramatically since 1976, and support the common knowledge that the problem is particularly serious for younger males. The work by Forbes and Van Der Hyde as well as Claymore emphasizes the importance of ongoing research to update, clarify, and, at times, correct misunderstandings concerning changing suicidal patterns. This suicidology research is particularly important to identify early trends that may signal an upswing in the suicide rate and allow for earlier programmatic intervention. In past research it has also been important to identify high-risk tribes that are in need of specific intervention services.

DeBruyn and her colleagues propose a community approach for intervention with individuals who are considered high-risk for suicide and violence. Their model includes the Special Initiatives Team of the Indian Health Service and adds a national dimension through the Indian Health Service to our view of effective program planning and intervention strategies. An important effort of the Special Initiatives Team has been the publication of an annotated bibliography by May on *"Suicide and Suicide Attempts among American Indians and Alaska Natives."* This contribution, which can be requested from the Office of Mental Health Programs Branch, Special Initiatives Team, 2401 12th Street, N.W., Albuquerque, New Mexico 87102, is a comprehensive review of 132 publications through July, 1987, and, as this issue, furthers efforts to provide information that will serve American Indian and Alaska Native people in the prevention of suicide.

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SECONDARY AND TERTIARY PREVENTION STRATEGIES APPLIED TO SUICIDE AMONG AMERICAN INDIANS

GORDON NELIGH, MD

ABSTRACT. Primary prevention concepts have been widely applied to health problems of American Indian people. When applied to mental health issues, and the problem of suicide in particular, primary prevention intervention methods may not be effective. As an alternative, secondary and tertiary interventions directed at the prevention of suicide are examined, including evidence for their effectiveness, and new potential applications of these techniques.

In the 1980s, planners in the Indian Health Service and tribal mental health programs have attempted to bring the concepts of health promotion and disease prevention to bear upon the major health problems of Indian people. Prevention efforts directed at diseases such as Type II diabetes mellitus, tuberculosis, and others have shown great promise. Within Indian health care programs, it is understandable that the concept of preventing mental health problems, one of the major health concerns affecting Indian people (Neligh, in press), should capture the imaginations of health planners and tribal leaders. Indeed, this decade is witnessing the development of a variety of programs aimed at preventing mental health problems among Indian people (Manson, 1982).

In spite of the proliferation of programs aimed at the prevention of mental illness and related problems, there is a lack of information about their effectiveness. Many of these programs make intuitive sense to planners and leaders who have initiated the programs. Because of the scholarship and fellowship programs sponsored by the Indian Health Service for leaders to obtain advanced public health degrees, the ideas of these leaders have often originated in public health rather than mental health fields. As a result, the well-intentioned planning efforts of prevention programs in Indian mental health have utilized public health models, but not mental health knowledge and technology, in an attempt to effectively deal with the mental health problems of Indian communities.

One of the results of the excitement about efforts to prevent mental illness among Indian people has been the dissemination of the concept of prevention at a rapid rate, and the application of the concept to a variety of health problems. Sometimes the proliferation enthusiasm for prevention interventions has taken place at a more rapid rate than the conceptual framework of mental health technology that would support prevention efforts in mental health. Indian mental health programs may, as a result, rely little upon concepts commonly used in the general mental illness prevention literature.

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When Indian communities experience high rates of suicide, for example, leaders and planners understandably rely upon prevention efforts to halt the suicides. Yet, they are sometimes unfamiliar with differences between health promotion and primary prevention, and may be unfamiliar with concepts of primary, secondary, and tertiary prevention. Instead of focusing program development efforts upon mental illness itself, there may be a targeting of programs toward events that may be symptomatic endpoints of mental illness, such as suicide, violence, alcohol abuse, child abuse, and adolescent pregnancy. Because of the focus on behavioral endpoints, it is difficult to define at-risk groups in communities. On some reservations, prevention programs are aimed at the entire population rather than a defined subgroup, making the prevention efforts inefficient and perhaps ineffective. Many of these programs rely upon common sense understandings of self-esteem and community pride rather than a model of risk based upon mental health technology. There is a lack of evidence that these general "prevention" programs are effective in Indian communities. Furthermore, there may be reason to believe that some of these interventions never reach the groups and individuals at highest risk for suicide.

Models of Mental Illness Prevention

Gerald Caplan may be one of the most articulate spokesmen for preventive mental health (Caplan, 1964). Applying public health principles to mental health, Caplan defined three levels of prevention of mental illness: (a) primary prevention is aimed at "reducing the incidence of mental disorders of all types in a community," (b) secondary prevention is for reducing "the duration of a significant number of those disorders which do occur in the community," and (c) tertiary prevention reduces "the impairment which may result from those disorders."

Since Caplan's book, each of these levels of prevention has developed its own programmatic definitions. Tertiary prevention in mental health has developed an element of rehabilitation in addition to minimizing the impact of established illnesses. Secondary prevention has come to include elements of screening and case identification as a means of early identification of illness. In order to reduce the prevalence of mental illness, these interventions seek to limit the progression of illnesses, hence their duration. Primary prevention is aimed at reducing the actual incidence of illness. The aim of primary prevention is to stop illness from occurring at all. In the years since Caplan's book was first published, another element has been added to the constellation of prevention interventions: (d) mental health promotion, defined as activities which promote behaviors and attitudes which reduce the risks of development of mental illness, and which will

minimize the impact of mental illness on the individual and his/her community. Health promotion activities are aimed at the development of positive attitudes and behaviors, rather than at specific prevention targets.

Caplan's original thesis included the proposition that primary prevention of mental illness should not have to depend upon known etiologic factors (Caplan, 1964). He draws an analogy of prevention efforts for bacterial diseases such as cholera to the task of primary prevention of mental illness, noting that Snow's study of the geographic distribution of cholera cases permitted identification of the Broad Street pump as the source of infection, without having to know about bacteria. Snow's removal of the pump handle prevented further cases of cholera, without the need for identification of a specific etiology for the illness (Snow, 1936).

In Snow's prevention project, the success of the effort depended upon measurement of the reduction of cholera cases. The prevention effort required some evidence of success in lieu of a sound foundation in the knowledge of the specific etiology of the illness. Caplan's model depends upon a model of presumed etiology to organize the interventions, in lieu of incorporation of outcome measures. Because of difficulties in the measurement of the outcomes of suicide prevention efforts in Indian communities, there would appear to be a need to rely upon an etiologic model as an organizing principle for prevention efforts. However, because of the dissociation of the suicide prevention efforts from mainstream mental health technology in many Indian programs, this etiologic basis for program planning may also be lacking. In the remainder of this paper a model for planning suicide prevention efforts, based upon presumed etiology, is advanced.

The Problem of Endemic and Epidemic Suicides

A major problem is posed for the study of Indian suicides in differentiating endemic and epidemic patterns in Indian communities. Endemic rates of suicide represent the steady ongoing suicides in a population. In contrast, epidemic rates represent clusters in a time period and a specific area or in a specific population. Suicide clusters are of particular concern among adolescents (Phillips & Cartensen, 1986). From data presented in a recent review of suicide among American Indians, May (1987) describes suicide patterns of several New Mexico tribes. These suicides clearly demonstrate the differences between epidemic and endemic patterns of the tribes. In his analysis, the rates of Navajo suicides increase slowly and steadily over the years, suggesting an endemic pattern. In contrast, Apache suicides varied from no suicides per year to rates of 70 per 100,000 and continuing in a pattern of peaks and valleys, suggesting an epidemic pattern.

In Indian and non-Indian communities, epidemic patterns of suicide present problems of measuring the effectiveness of prevention efforts. Because the course of these epidemics is such that they end according to a logic that has not yet been identified, it is impossible to say with any degree of certainty whether a specific epidemic has run its natural course, or if a specific prevention intervention has halted the epidemic. The only way of determining the effectiveness of efforts to prevent epidemic suicides would be to identify locations with periodic suicide epidemics, and to prevent the predicted magnitude or actual occurrence of the epidemic. In a single epidemic, it is not possible to assess the effectiveness of prevention interventions. To date, the prevention of periodic episodes of Indian suicide has not been reported.

Endemic suicide rates present a much better opportunity for assessing the effectiveness of suicide prevention efforts. A strong case can be made for the effectiveness of a prevention effort if the endemic rate, present for a number of years, can be reduced for some years following the initiation of a specific prevention effort. However, because suicide epidemics in Indian communities often attract a great deal of public attention, more attention in Indian communities is devoted to epidemic suicide from a programmatic standpoint, than to endemic patterns of suicide. In the Intermountain tribe discussed by May (1987) in his review of Indian suicide, a high endemic rate of suicide was reduced, seemingly as a result of specific interventions by the tribe, to a much lower level that persisted for many years (the author has also worked with this tribe and is aware of long-term reduced rates of suicide).

In addition to the problem of support for prevention efforts for endemic patterns of suicide, there is not evidence to suggest that endemic and epidemic patterns of suicide would respond to the same prevention efforts in Indian communities. Indeed, the "suggestibility" factor (Phillips, 1974) in adolescent suicide clusters would suggest a very different set of interventions than would a series of suicides among older individuals connected to each other only through common tribal membership.

Primary Prevention of Indian Suicide

In the author's years with the Indian Health Service, a conversion of resources from clinical efforts to primary prevention programs occurred. Several IHS Areas have, for example, held annual illness prevention conferences and added recreational programs for youth at the same time that positions for mental health professionals have been reduced. The same Service Units have health promotion fairs and other health promotion activities while concurrently not providing mental health referrals for patients coming to the emergency room with overdoses and other suicide attempts. Indeed, at a national conference on Indian

mental health in 1985, a highly placed Indian Health Service official voiced the opinion that all the money spent on treating people with established mental illness was wasted: This money should be spent in preventing schizophrenia in childhood. Although these are isolated events and trends, they reflect a belief in the Indian Health Service that primary prevention and health promotion activities are the only legitimate forms of intervention for preventing mental illness and its consequences, including suicide.

In spite of the enthusiasm for primary prevention efforts, there is reason to question the effectiveness of poorly designed primary prevention interventions in mental health. The author remembers educational efforts to encourage Indian youth to avoid drug abuse. The prevention approach involved a middle-aged non-Indian showing a film about the evils of drugs at a reservation school. I asked several adolescent males who were my patients at the time about the effectiveness of this campaign. They voiced the opinion that this "Mr. Rogers" approach lacked credibility, and was likely to increase drug use in their peer group (although not in those words). It seems likely that such educational approaches run the risk of eliciting a paradoxical response from youth who are alienated from the adult world and the non-Indian adult world in particular, as were these patients.

It might be suspected that more recent efforts involving sports stars encouraging young people to avoid drugs run similar risks, at best appealing to young people with athletic inclinations, but not to other subcultural groups of young people who may run an even greater risk for suicide than their athletic peers.

Primary prevention efforts aimed at preventing suicide among young Indian people run similar risks of ineffectiveness. Therapists who work with adolescents and young adults know well the risks of telling these patients directly to take a particular action, or to give up a particular activity. If these were effective interventions, psychotherapy and counseling would be very simple activities. One elder from a tribe that was experiencing a dramatic epidemic of suicide among its young adults expressed the opinion that the actions of the community were contributing to the epidemic. The elder's observation was that the community had not expressed concern about the youth until the epidemic began. Then the elders began to publicly exhort the young people not to kill themselves and to express appreciation for them, at the advice of health professionals. At the same time, the alienated young people would attend the funerals of their friends and, in death, hear their friends praised extensively. These deceased young people had been alienated from their communities and had received little praise in life. The elder felt that the combination of exhortation to avoid suicide and the extensive praise of the dead youth at the funeral created the social message that the only way to win grudging

praise from the adults in the community was to die. While this analysis may be excessively harsh, it highlights the risks of simplistic prevention efforts in adolescent suicide. While no study was made to validate the observations of the elder, this observation should be at least cause for caution in designing primary prevention interventions for Indian adolescent suicide. Indeed, a similar trend was noted in non-Indian youth following the airing of television programs that may have tended to dramatize suicide among young people (Gould & Shaffer, 1986).

While it is logical to assume that primary prevention efforts are the ideal means to approach the problem of suicide among Indian youth, it is by no means demonstrated that effective primary prevention strategies yet exist to attack the problem. At best, the lack of outcome data prevents sharing of strategies to cope with this problem which may be effective but unknown outside a small area. Worse, if these programs were ineffective, but not actually damaging, the resources devoted to them may be taken from programs and other approaches with a demonstrable effectiveness. In the worst case, it may be that some primary prevention approaches, particularly educational approaches if inexpertly presented, actually increase the risk of suicide among Indian youth. The lack of data in this field would indicate that any of these three cases is of equal probability. For this reason it may be an ethical necessity to present these primary prevention interventions to tribes as experimental, with the possibility of causing harm, until an effective outcome literature is established.

Secondary and Tertiary Approaches to the Prevention of Indian Suicide

In the strictest sense, secondary and tertiary approaches to the prevention of suicide are not possible, since such prevention approaches require established cases. However, if one considers the secondary and tertiary prevention of illnesses which are known or thought to bring with them an increased risk for suicide, prevention of these illnesses and their consequences becomes a means of bringing secondary and tertiary prevention efforts to bear upon the prevention of suicide. Likewise, if one considers suicidal behaviors in some cases to be early "cases" of suicide, it is theoretically possible to intervene in these early cases such that they will not progress to the full condition of a successful suicide.

In prevention interventions that treat other conditions as a means of reducing risk for suicide, there are a number of illnesses and conditions which present likely targets. From a conceptual framework, I propose these disorders be divided into three categories:

1. Disorders that usually run a time-limited course, and are relatively treatable, but which during their course pose a substantial risk for suicide. This risk is accompanied by cognitive changes that can be assessed with a suicide risk appraisal. Examples include major depressive episodes and panic disorder.
2. Disorders that pose a chronic risk of suicide that is difficult to assess, and may be of an impulsive nature. Examples include organic mental syndromes, schizophrenia, and severe personality disorders.
3. Disorders that increase the risk for suicide in an otherwise low- or moderate-risk individual, the assessment of which is of intermediate reliability because of the rapidly fluctuating course. Examples include alcohol and drug intoxication and acute grief.

Time-Limited and Relatively Treatable Disorders

Divided in this way, the delivery of services to each group follows a logical course. In the first group of illnesses, good treatments exist once a diagnosis is made, at least in a non-Indian population. The objective of prevention efforts aimed at this group is early identification and intervention, conforming to the pattern of secondary prevention. To date, the risks of illnesses which in clinical training with non-Indians are linked to depression have been established only by inference, as in the 1981 discussion of depression among American Indians and Alaska Natives by Manson and Shore (1981) which discusses suicide in conjunction with depression among American Indians in both a modern and historical context. Likewise, panic disorder is known to pose a risk for death by suicide among non-Indians (Coryell, Noyes, & Clancy, 1982), and is reported among American Indians (Neligh, in press), leading to a suspicion that it may be the cause of Indian suicides as well. Because no national Indian mental health data system that includes diagnostic information exists, correlating specific diagnoses with risks for death by suicide in Indian populations is not possible. However, the tribe that accomplished a significant reduction in what appears to be a very high endemic suicide rate, discussed by May (1987), also employed an aggressive program of diagnosis and treatment of major mental illness. This program utilized psychiatric consultants and actively treated depression, among other illnesses. With the suspicion of very high rates of major depressive illness among many Indian groups by clinicians, active community education about signs and symptoms of depression, and active treatment using modern methods may be highly effective means of preventing suicide in Indian communities.

In applying secondary prevention interventions to the first group of illnesses, a number of steps will be needed at various levels of the service delivery system:

1. At the level of IHS Headquarters and among academicians studying Indian mental health, there is a need for concerted research efforts to identify first incidence and prevalence of major mental illness in Indian communities, and then to assess the relationships among the various major mental disorders and specific outcomes such as suicide.

2. There is a need for researchers to replicate treatment outcome studies for major mental illness from non-Indian groups with Indian populations.

3. At the Area office level there is a need for training and standards of care which will assure that each patient receives an adequate evaluation for major mental illness, and has access to adequate treatment for the illness once it is identified.

4. At the Service Unit level, physicians should be trained to identify major mental illnesses presenting in their clinics, and be trained in modern medical treatments for these illnesses, particularly depression and panic disorder. The physicians should also be made aware of the need for psychotherapeutic interventions in these illnesses, and should be trained to work as a team with Service Unit mental health staff.

5. Mental health staff should be trained in performing adequate mental status and other examinations in accord with the new national IHS standards for mental health programs. In addition, staff should be trained in modern treatments for major mental illness. Mental health staff should also be trained to work comfortably with physicians as a treatment team in bringing these modern treatments to bear in the planning of the treatment for patients with these major disorders. (Currently, many IHS mental health staff are reluctant to perform structured interviews, make diagnoses, or to apply the "medical model" approaches that are effective treatments for several of the major mental disorders).

6. An attempt should be made to educate community members on the signs and symptoms of the most dangerous of the major mental illnesses, in order to seek treatment early in the course of a depression or panic disorder, or to be able to recognize the signs of these illnesses in others (particularly adolescent family members). This community awareness building should also make community members aware that good treatments exist for these conditions.

7. Tribal leaders and health care planners should be made aware that staff hired for mental health programs need to be trained and qualified to provide specialized technical treatment for these major mental illnesses, and that particular types of education are required in filling mental health positions.

8. At some point it may be possible to organize citizen advocacy groups on reservations, such as the Alliance for the Mentally Ill, whose function would be community education, and reducing the stigmatization of mental illness in the Indian communities.

The net result of these interventions would be the early identification of mental illnesses associated with high risk of suicide, the delivery of effective treatments for these illnesses where known, and the reduction of at least endemic suicide rates (presuming that these risk-producing mental illnesses occur with a fixed prevalence in the population). If it is demonstrated that these major mental illnesses also increase the risk of epidemic suicide, they may also be able to reduce or prevent such suicides.

Tertiary prevention interventions with this same group of patients suffering from major mental illness must focus on adequate care for existing cases. In this regard, an evaluation of the suicide potential is a preliminary step in assessing each patient. If a high potential for suicide is discovered, hospitalization, non-suicide contracts, mobilization of the patient's social support network, and other tertiary suicide prevention strategies can be mobilized. It must be emphasized, however, that without adequate treatment for the major mental illness, these anti-suicide steps lack long-term effectiveness. Adequate diagnosis and treatment of the major mental illness, as well as specific tertiary antisuicide prevention steps, form the most logical constellation of interventions for this group of disorders.

Chronic and Relatively Unpredictable Risk Disorders

The second group of patients poses a different type of risk for suicide. This group is identified as having in common a high suicide risk that may be of a variable nature and is difficult to identify with a suicide risk appraisal. If a specific risk of suicide is identified, many of the interventions such as contracts or agreements with patients not to attempt suicide cannot be relied upon as effectively as in the first group, because of the patients' changing mental status and the power of their symptoms to disorganize thinking. Patients in this group suffering from organic mental syndromes, for example, may be unable to remember agreements made with clinicians, or face psychotic symptoms so powerful that such agreements are meaningless. Similarly, patients suffering from schizophrenia may experience command hallucinations telling them to kill themselves that may not be detectable during the patients' visits. In these conditions, tertiary prevention strategies of managing complications of the core illness are of major importance. For patients suffering from organic mental syndromes, the diagnosis and care of the organic mental syndrome is of primary concern, and Indian patients suffering from acute organic mental syndromes should be treated as medical emergencies and hospitalized if possible (Neligh & Scully, in preparation). Indian patients suffering from schizophrenia pose a major problem in that there is generally a lack of specialized programs and facilities to care for them in the reservation setting. For example, day treatment,

partial hospitalization, and halfway houses for the chronically mentally ill are rare to non-existent on reservations. In lieu of these programs, the use of community health representatives serving as case managers has been proposed (Neligh & Manson, 1984). In addition to active case management of schizophrenic patients and patients suffering from chronic organic mental syndromes, good medical care including medical management of core symptoms is of importance.

Patients suffering from what appear to be personality disorders represent another high-risk group that are relatively unpredictable and unstable. Although relatively little is known about personality disorders among Indians (Neligh, in press), clinicians in Indian programs routinely treat patients as though conditions such as "borderline personality disorder" exist in these Indian populations. However these disorders are conceptualized or diagnosed, there are Indian patients seen in most Indian mental health programs who react to social stressors with attempted suicide or violence. These patients do not appear to suffer from a DSM-III or DSM-III-R Axis I diagnosis of a major mental disorder, but have long-standing problems with what at least appears to be maladaptive behavior. For a variety of reasons, there is almost no literature on this group of Indian patients, although most clinicians in Indian programs have treated these people. Because of the scarcity of literature on this group, many clinicians in Indian programs proceed as though this group corresponded to comparable personality disorders in non-Indians. Limit setting, long-term therapeutic relationships, avoiding institutionalization if possible, and the use of psychotropic medications are all practiced. However, because the suicide risk of this group arises from either poor impulse control or maladaptive responses to stress, major risks for suicide may take place in a time frame outside the control of the weekly (or even daily) therapy sessions. It is not clear that intensive involvement by the therapist (such as responding to telephone calls at all hours, or home visits at times of crisis, in the extreme) is helpful to the long-term course of these cases. Extensive emotional investment on the part of the therapist may cause enmeshed, dependent relationships between the therapist and patients, that have led to a variety of dramatic negative outcomes for both therapist and patient in reservation communities. Other interventions, such as self-help groups for these patients, case management, and network interventions offer alternatives, but their effectiveness remains to be proven.

Disorders Increasing Risk in Low/Moderate-Risk Individuals

The third group of disorders in the list poses an acute risk for suicidal behaviors. It consists of acute mental disorders that magnify the risk of suicide in even individuals with otherwise lower suicide risk. Certainly alcohol and drug

intoxication and withdrawal represent one of the greatest threats among these conditions. May (1987) found that among Plains, Intermountain, and Northwest tribes, 55%, 75%, and 31% of the youth suicide attempts were alcohol and drug related. Prevention of alcohol and drug abuse among Indians in general is beyond the scope of this paper. However, in individuals suffering from major mental illness, there may be a compounding of risk factors such that individuals running a high risk of suicide as a result of major depression or schizophrenia pose a far greater risk for suicide when intoxicated or withdrawing from drugs and alcohol. If true, this would suggest that working strongly with patients suffering from major mental illness to avoid alcohol and illicit drugs may be a much more effective tool in suicide prevention than working with communities at large to avoid alcohol and drugs.

Another acute risk factor in some Indian populations is the effect of grief from the loss of family or peers. In several suicide epidemics among adolescents on reservations, this author has found the suicides spreading among a particular peer group, rather that the young people in general. The effects of the suicide of a friend or peer may be due at least in part to grief. In some of the Indian cultures in which I have worked, the loss of a close relative or friend is often accompanied by visions of the dead person returning to encourage the living person to join them. I have spoken only with those who resisted this invitation, but strongly suspect that some of the suicides and parasuicides on these reservations may have been the results of people accepting the invitation.

With high death rates and, in particular, suicide rates on a particular reservation, the friends and relatives of a recently deceased person constitute a risk group appropriate for prevention interventions, particularly work designed to help people with grief. Likewise, people who abuse substances constitute another risk group for acute and relatively unpredictable suicides.

If each of the three categories of major mental disorders listed above represents a high-risk group for suicides among Indian people, the cumulative effects of an individual or group suffering from disorders in several of these categories, or from several disorders within a single category, present challenging questions for the design of Indian suicide prevention programs in the future. For example, if the effects of having two separate disorders with a high risk for suicide was additive, a mental health program could significantly reduce the risk for suicide in very high-risk individuals by treating even one of the conditions. If the relationship were more multiplicative than additive, very significant reductions in suicide could be accomplished with even less effort. For example, this model would suggest that a campaign to avoid drinking in individuals with major depression could have a significant effect on reducing suicide, if true. Likewise, treatment of panic disorder in episodic drinking populations might have very significant effects. In addition to the possible cumulative effects of these

multiple disorders, questions are posed about the cumulative effects of these disorders with other risk factors such as age, economic status, and gender. For example, on a specific reservation experiencing a suicide epidemic, it may be that a program to aggressively identify and treat young men between 16 and 20 years old, who are depressed and drink in an episodic excessive manner, could halt the hypothetical suicide attempt. This type of effort would be a sharp contrast to the general primary prevention efforts most frequently employed at present.

Secondary Prevention of "Suicidality"

Another way of viewing secondary and tertiary suicide prevention efforts is considering those who attempt suicide as early cases of suicide, and launching efforts to stop them from progressing to completed cases of suicide. As May (1987) points out, suicide attempts are not directly correlated with frank suicide lethality on most reservations. May also notes that suicide attempters are younger than completed suicides in his study, and use less lethal means to attempt suicide than the completed suicides. He finds the relationship of suicide attempts to interpersonal situations, rather than to a wish to die, in 43% of his sample. Nevertheless, one must question whether completed Indian suicides are in some cases those who began as suicide attempters and progressed either through experience or accident to completed cases. At least, because of their exposing themselves to a high-risk activity in the form of a potentially lethal or injurious overdose or other form of attempt, they run a greater risk of eventual accidental death from future attempts than would a non-attempter.

In spite of the increased risk for future completed suicide, many reservation medical systems treat suicide attempts as events which do not merit referral to mental health or alcohol treatment programs, in spite of the high potential lethality of the attempts in certain cases. The author has reviewed numerous records of reservation emergency room visits for overdoses, wrist and throat lacerations, and other suicide attempts in which the patient was given gastric lavage, sutured or otherwise given acute treatment for a suicide attempt, and discharged without a referral or a treatment plan to prevent future attempts or a possible completed suicide. In many of these cases alcohol intoxication was seen as the causative event in the suicide attempt, rather than as an acute risk factor in addition to others. Reasons for the lack of referral in these cases were often not clear, but may have had to do with the physician's belief that these attempts were one-time events with no overall significance, the physician's anger about self-destructive behavior on the part of the patient, or simply local custom. In many cases, the failure of referral took place in spite of the clinic's existing published policy to the contrary.

In viewing suicide attempts as possible early cases of suicide, a secondary prevention model would suggest that active interventions should take place with these patients to prevent the progression of the patients to completed suicides. In doing so, local clinicians are again faced with a relative lack of treatment outcome literature. Fleming (1981, 1983) found that a program combining traditional Indian values and group therapy techniques with suicide attempters was able to reduce the suicide attempt rate substantially. Other promising approaches may include treating existing major mental illnesses within this group, utilizing cognitive therapy techniques to reduce the frequency and impact of suicidal thoughts, discouraging drinking and drug use among suicide attempters, and working with attempters around grief.

Scope of the Secondary and Tertiary Prevention Efforts

As some of the primary preventions are attempted in Indian communities, it has seemed that the objective of these efforts is to effect a major social and attitudinal change in the entire community such that the problem of suicide (or whatever other behavioral health problem is the target) will vanish completely in a "phase shift." In contrast, the goals of secondary and tertiary prevention efforts around suicide must be more modest. It cannot be supposed that all or even the majority of cases of suicide on a reservation are related to major mental illness. The lack of data about the epidemiology of major mental illness on reservations, and the lack of data about suicide risks posed by particular illnesses, remains a major problem. If the model proposed here is valid, however, the institution of programs to implement disorder-specific secondary and tertiary prevention interventions should have an effect of whittling away at endemic suicide rates over time. Rather than a dramatic effect of abolishing suicide immediately, these interventions should be considered in the same light as programs aimed at reducing blood pressure, stopping smoking, and adopting an exercise program, which have had significant but slow effects on rates of myocardial infarction in this country. The effect of secondary and tertiary prevention efforts on epidemic suicide patterns is less certain.

Programmatic Implications

In sharp contrast to many current "primary prevention" efforts, the secondary and tertiary prevention efforts proposed here require strong competent mental health programs serving reservations. Rather than taking the funds which have supported trained mental health staff to support non-mental health staff whose function is to alter community attitudes, as has been done in the past, this model proposes that a trained and competent mental health program is the basis for

realistic efforts at reducing suicide in Indian communities. Indeed, this author's experience with the Intermountain tribe described by May (1987) and other tribes which have created strong mental health programs supports the contention that a competent mental health program with a "high-technology" approach has a major impact on the suicide rates in Indian communities. As a minimum, these mental health programs must be able to diagnose and treat common major mental illnesses either with the assistance of psychiatric consultants or in the form of a team with specially trained primary care providers and local mental health staff. The efforts of these teams of staff can be enhanced through a variety of mechanisms including the development of better diagnostic and screening instruments, community education aimed at case finding, and better referral mechanisms with primary medical care providers. Minimum standards of care around major mental illnesses and quality assurance reviews of compliance with these standards may be vital tools to improve the quality of care for high-risk conditions. Care for the chronically mentally ill on reservations may also provide a means for reducing suicide risk among this group. Case management techniques may be among the most effective tools for improving the care for this group on resource-poor reservations. For all of these technologies to be brought to bear on the problem of suicide, a concerted effort will have to be made to hire and train staff capable of performing these tasks.

Special innovative programs for the treatment of patients with multiple risk factors, such as combinations of alcohol and drug abuse, major depressions, organic mental syndromes, and grief and family problems, offer a possibility for a new generation of effective suicide prevention programs for Indian people. In order to create these programs, however, studies of the specific risks posed by these conditions and information about their local prevalence need to be performed.

It is not the purpose of this model to underestimate the contribution of socioeconomic factors and cultural disintegration to suicide rates among Indian communities. These factors have long been identified as contributory to Indian suicide. However, at the level of the health care program, these socioeconomic factors have often seemed much too large for any effective interventions. Rather, the purpose of this paper has been to present a model for reducing suicide rates at a local or Area level, that are within the grasp of existing programs, yet are in accord with modern mental health technology.

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A PUBLIC HEALTH APPROACH TO SUICIDE ATTEMPTS ON A SIOUX RESERVATION

BETTY J. CLAYMORE, PhD

ABSTRACT. An analysis of 72 Indian Health Service (IHS) medical records of suicide attempts and completions covering a 1-year time span on a Sioux Indian reservation is made using a 41-item protocol. Medical records provide significant data to develop attempter profiles, identify high-risk groups, determine high-risk days and months, and identify methods of attempts and other data useful to developing focused intervention plans.

The purpose of this study was to prepare a profile of suicide attempters on a Sioux Indian reservation and to identify associated factors and events so that tribal and governmental resources can be focused on them in efforts to reduce typically high rates. A secondary purpose was to demonstrate that Public Health Service medical record data can be readily accessed to design planned interventions. This study was also intended to provide baseline data by which to measure effectiveness of future intervention strategies in reducing suicide attempts and completions.

Background

The literature describes various approaches to reducing suicide attempts and completions. Many common methods have not proven to be effective. These include hotlines (Bridge, 1977), suicide prevention centers (Kiev, 1971), and suicide education (Stuart, 1974). Individual counseling shows mixed reviews (Lester, 1974; Shore, Bopps, Waller, & Dawes, 1972). More successful approaches appear to be those which restrict behaviors, such as firearm laws (Geisel, Roll, & Wetlick, 1969) and other ways of reducing access to lethal means of self-inflicted death (Hassall & Trethowan, 1972). None of these methods address patterns of culture and lifestyle and their impact through time on sustaining and reinforcing negative behaviors. This trend persists despite common recognition that various tribes maintain or periodically repeat suicidal behaviors while others are virtually suicide free. There appear to be both random events and national norms for suicide. There are, however, local factors that characterize particular communities that are subject to change, and which can be altered to intervene on behalf of their members.

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The Problem

A Sioux reservation in the Aberdeen Area serviced by the Indian Health Service has had a high rate of suicide documented by federal agencies for at least 20 years. Using a 3-year composite for this small population, the current suicide rate (1981-83) is 66 per 100,000. The crude incidence rate of attempts for fiscal year 1986 is 1,281 attempts per 100,000. The suicide rate is 53.4 per 100,000. (See Figure 1 for a comparison of age-adjusted rates).

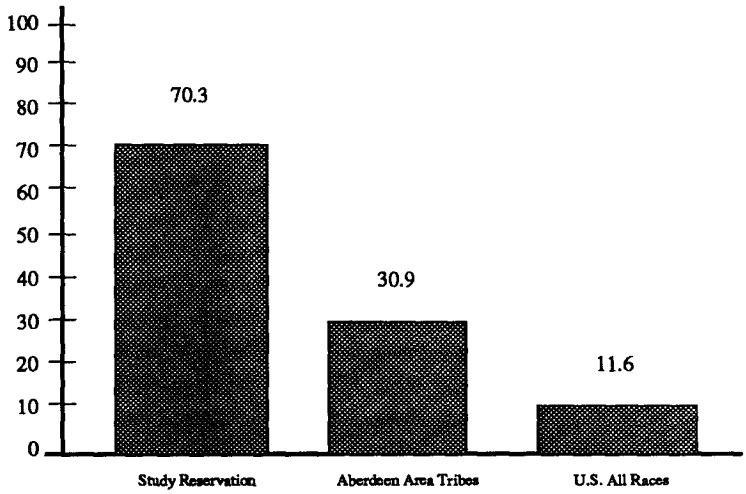

Figure 1. Suicide age-adjusted rates per 100,000 (1981-1983) of a Sioux reservation in the Aberdeen Area.

From October, 1985, through September, 1986, 72 attempts and 3 completions occurred among the 5,620 tribal members. The tribe became concerned that they were experiencing inordinate numbers of attempts among young teenagers (13-15 years) and asked for assistance in developing data which would help their tribal task force effectively address the problem (Figure 2).

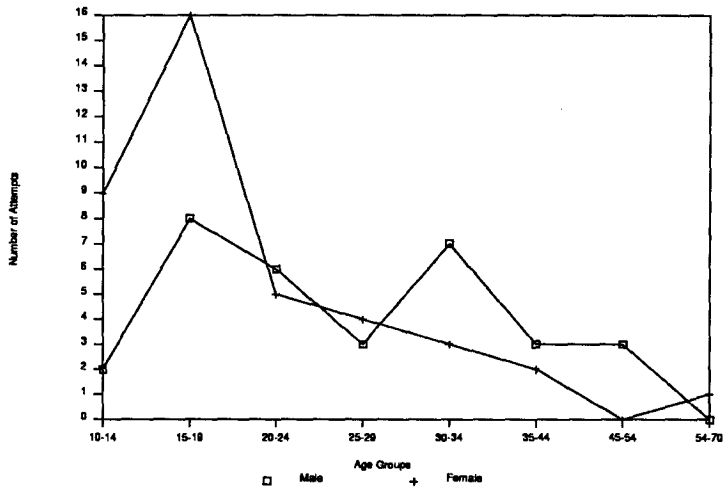

Figure 2. Number of suicide attempts by age and sex (October, 1985 - September, 1986).

Method

Indian Health Service medical records were reviewed to obtain demographic, medical, and subjective information such as previous attempts and precipitating events. It was recognized that the tribe might wish to obtain additional data later if insufficient data was found in the charts to be of value to the tribal intervention plan. Charts selected for review were identified from emergency room logs, interviews of medical staff, and cross-referencing with referrals to the mental health program. The first 5 months of data were obtained by a researcher assisted by a Centers for Disease Control public health advisor. An additional 7 months of data were extracted by a mental health staff member.

Results

The most significant result was that all teenage males utilized hanging as a common method and all three of the previously mentioned completions occurred by hanging. Female attempts were predominantly overdoses; after age 20 male attempts also involved overdosing. Medication overdoses were both prescription and over-the-counter, varying greatly in type and dosage. In contrast to national norms, within this population females attempted suicide only slightly more frequently than males. Thirty-nine percent of these individuals had previous attempts. Twenty-nine percent of the attempts occurred on Wednesdays. Most

of this population lived most of their lives on this reservation, having been born at the local hospital. Precipitating events varied and appeared to be multifactorial. They included faulty relationships, custody anxieties, personal disappointments, and chronic alcohol problems. Sixty-four percent of the attempts were associated with some use of alcohol. Major peak periods of attempts were in December and then again in April/May. Attempts did not appear to be correlated with weather patterns. Thirty-nine percent had been seen previously by mental health staff and 33% had some form of chronic medical problem. Forty-two percent of the attempters were students. Many attempts were impulsive in nature and suggested by other recent attempts. The average age was 23.5 years with 16 years being the modal age. Hospitalization was required in 39 of 72 attempts. All the attempters received counseling by the local mental health program staff.

Discussion

Sufficient data can be obtained from Public Health Service medical records to learn important facts regarding suicide attempts and to implement interventions. However, the medical record is a poor source of information on completions since there is little routine information gathered on those who are dead upon arrival to the unit of care. Psychological autopsies need to be completed to obtain additional data. The uniqueness of each tribe's data can be a key to focused intervention. Crisis intervention models should include immediate and specific approaches to thwart suicidal behaviors and methods, to provide diversionary activities, and to reduce social tensions. Long-term intervention/ prevention strategies should consider suicidal behaviors within tribes as intergenerational issues and develop plans for improving self-esteem, enhancing coping mechanisms, changing perceptions, and learning alternative behaviors in order to interrupt recurring patterns of destruction. Like emphasis needs to be placed upon family life improvement and positive community development.

Communities and tribes who wish to use a public health approach to reduce attempts and/or reduce suicides can take direction from some of the following suggestions:

1. Develop baseline data with a minimum of 3 years information for completions. Develop data on attempts for 2 to 3 years.
2. Study this data for unusual patterns. There are national normative aspects of suicide. One may observe random individual acts but there are also unique patterns in reservation suicide statistics which reflect the influence of contemporary social forces. The patterns vary from time to time and are amenable to change by a society/tribe which wishes to intervene on behalf of its

members. Examples of such patterns include the observation that in this community, one third of the attempts were made on Wednesdays and that all teenage males at one location attempted suicide by hanging.

3. Once the patterns are identified, tribal task forces may formulate intervention plans to prevent or alter the behaviors. Internationally, the most effective method of reducing suicide has been shown to be to interfere with the most popular means of killing oneself. In England, for example, when carbon monoxide was removed from coal gas, which was intended for household cooking and often used for suicide, the overall decline in the suicide rate was more than 50% (Hassall & Trethowan, 1972). The suicide rate decreased in San Francisco after the Golden Gate Bridge was fenced. Tribes may presume that if the most popular method is not available, then attempters will find another way to kill themselves. This assumption has not proven to be correct. Many suicides and attempts are impulsive acts; if the means as perceived are not available, there may be no subsequent attempt. In the Aberdeen Area, the majority of attempts are by overdoses on readily available medications. Restricting access to medications by high-risk individuals and especially previous attempters may avert additional attempts.

4. Lastly, communities should commit to monitoring and evaluating interventions by maintaining careful and accurate statistical data.

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CLUSTER SUICIDE IN AMERICAN INDIAN ADOLESCENTS

DONALD W. BECHTOLD, MD

ABSTRACT. Death by suicide has been a growing problem among teenage and young adult males over the last 2 decades. The tendency for such suicides to occur in clusters (serial suicides related in time and space, and etiologically related through the process of imitation) has concurrently increased. The general characteristics of adolescent suicide are reviewed here, as are the special characteristics of cluster suicide, and the culturally specific patterns of suicide among Indian people. A suicide cluster among teenage and young adult males of a Plains Indian tribe is described, and clinical implications for intervention strategies during a suicide cluster are discussed.

General Characteristics of Adolescent Suicide

Over the past 30 years, suicide has become an increasingly serious problem among American children and adolescents. Suicide is now the third most common cause of death among people between the ages of 15 and 24, and suicide rates have approximately tripled in the last 30 years. By the year 1980, more that 5,000 teenage suicides were occurring annually, and the suicide rate among individuals in the 15-24 year age group was in excess of 12 per 100,000. This trend toward increases in both base rate and absolute number of suicides has continued into the 1980s. The greatest increase in completed suicides has occurred among young White males; the suicide rate for females has not increased significantly and suicide rates among those older than 30 years of age have declined somewhat in the same period of time (Centers for Disease Control, 1986; Shaffer & Fisher, 1981).

Despite the growing magnitude of the problem, "there is a lack of systematic research on completed suicide in childhood and adolescence" (Shafii, Carrigan, Whittinghill, & Derrick, 1985). Shaffer concurs as he states, "published reports on successful suicide in childhood mainly take the form of commentaries on official statistics, with emphasis on age and sex characteristics and suicidal method" (Shaffer, 1974). While the literature is replete with data concerning suicidal ideation and incomplete suicides among adolescents, only a few investigators have followed the perspective of Robins, Murphy, Wilkinson, Gassner, and Kayes (1959) who first pointed out that only a study of nonselected consecutive suicides could evaluate for premorbid characteristics that might be helpful in predicting suicide (Amir, 1973; Jan-Tausch, 1964; Sathyavathi, 1975; Schaffer, 1974; Shafii et al., 1985). The findings derived from the majority of these studies have served to further the understanding of the demographic-diagnostic profile(s) of the victims, and have focused largely on life events, personality characteristics, and family circumstances which were juxtaposed in time to the suicides.

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Findings of commonality among adolescent suicide victims have included Shaffer's observation of physical and intellectual developmental precocity in early adolescent suicide victims (1974), and in the life-experience familiarity with the phenomenon of suicide itself (Shaffer, 1974; Shafii et al., 1985). Rotheram (1987) listed "male sex, a (one) past attempt with a method other than ingestion, more than one previous attempt (any method), a history of antisocial behavior, having a close friend who committed suicide or a family member who attempted suicide, frequent drug and alcohol use, depression, and incompatibility with the social environment" as statistically based factors which make a clinical prediction regarding suicide.

Special Characteristics of Adolescent Suicide: The Phenomenon of Clustering

Concurrent with the increase in the base rate of adolescent suicide has been the observation of its increasing tendency to occur in clusters, which have been defined as any series containing more than three deaths, closely associated in space and time (Coleman, 1986). Since 1966, clusters have been reported among adolescents in such geographically and socioculturally varied locales as Berkeley, California; Fairfax County, Virginia; Cheyenne, Wyoming; Groveport, Ohio; Plano, Texas; Clear Lake, Texas; Westchester, Rockland, and Putnam Counties, New York; Leominster, Massachusetts; Lewis and Clark Counties, Montana; Wind River Reservation, Wyoming; Tokyo, Japan; Mankato, Minnesota; Omaha, Nebraska; Jefferson County, Colorado; Spencer, Massachusetts; and Union County, South Dakota. A recent and well-publicized example of a cluster of teenage suicides was precipitated when four teenagers asphyxiated themselves in a Bergenfield, New Jersey garage. In the ensuing 9 days, 10 more teenagers (7 in Illinois, one each in Nebraska, New Jersey, and Washington) committed suicide by similar means. Shortly thereafter, two other teenagers attempted suicide by the same means in the same Bergenfield garage where it all began. Within 2 weeks of the original Bergenfield deaths, 22 teenage suicides by similar means had occurred nationwide (Coleman, 1987).

While much remains to be learned about the phenomenon of cluster suicides, two important factors are apparent at the present time. First, the phenomenon is largely limited to adolescents (adult suicide clusters have not been prominent in recent history) and that in spite of the 4:1 preponderance of the male to female suicide ratio, clustering appears more strongly among females than among males (Phillips & Carstensen, 1986). Second is that imitative behavior appears to be a major link between serial suicides in a cluster and that the process of imitation may be spurred either by personal knowledge in a relatively closed community or by media coverage across a large segment of the population. Teenage suicides have been shown to increase and cluster after television news stories

about suicide, television soap opera suicide stories, television movies which dramatize suicide, and front-page newspaper reports of suicide (Gould & Shaffer, 1986; Phillips, 1979, 1982; Phillips & Carstensen, 1986). Significant increases in single-car auto fatalities following media coverage of suicide have been demonstrated as well (Phillips, 1979, 1982). Even though the link between imitative clusters of adolescent suicides following fictional television movie dramatizations of suicide has recently failed to replicate in a different geographic locale (Phillips & Paight, 1987), the relationship between nonfictional media coverage of suicide and imitative adolescent suicides appears largely irrefutable.

Culturally Specific Patterns of American Indian Adolescent Suicide

Most of the review of the current understandings of adolescent suicide described above has been derived across cultures, or in cultures largely distinct from American Indian communities. In considering the culturally distinct subset of American Indian adolescent suicide completers, several factors must be considered. While overall suicide rates among American Indians remain high, there is great variation based on gender, age, socioeconomic status, and geographic and tribal-specific factors. Foulks and Wintrob (1987) provide a useful overview of these cultural specificities across tribes spanning the entire United States. Peters (1981) reviewed the medical, psychological, and anthropological literature on suicidal behavior of American Indians, Canadian Natives, and Alaska Natives. Shore (1975) cited tribal-specific annual suicide rates ranging from 8 to 120 per 100,000 and argued against the stereotype of "the suicidal Indian." The age-specific pattern of suicide among American Indians is especially important when the population in question is reduced to the adolescent subset. Contrary to age-specific rates for "all races" which peak in the 55-64 age range, suicide rates for American Indians peak in the 15-24 age range at which time the American Indian rate is several times greater than the national rate (Ogden, Spector, & Hill, 1970). Regarding gender specificity, Ogden et al. further described the male predominance of suicide among American Indians to exceed the male predominance of suicide across all subsets of the population as a whole.

While there is an extensive and growing literature on American Indian suicide, less has been done specific to the adolescent subset of this population, especially in terms of systematic and controlled research regarding completed suicide. Studies to date have been largely descriptive, demographic, and epidemiologic. Shore, Bopp, Waller, and Dawes (1972) and Dizmang, Watson, May, and Bopp (1974) in describing a common database of completed adolescent suicide over an 8-year period of time on a Pacific Northwest Indian reservation found the suicide group to be differentiated from the control group by several factors related to an

unstable home environment and greater instability of family relationships. Blanchard, Blanchard, and Roll (1976) presented a single case study of completed adolescent suicide in a Southwestern Indian tribe in the style of a psychological autopsy. Miller (1979) described an epidemiologic study of completed suicides on a Southwestern Indian reservation in which the modal suicide victim was found to be a male under the age of 30. Curlee (1972) in studying suicide at the Cheyenne River Reservation related suicide among youths and "suicide equivalents" (alcoholism, violence, disregard for health) among adults to poor socioeconomic conditions, culture transition conflicts, and low self-esteem. Resnik and Dizmang (1971) added the variables, among Indian suicide victims they studied, of widespread unemployment and high individual alcoholism rates. Watson (1969) in reporting on the epidemic at Fort Hall, Idaho, implicated the variables of publicity surrounding suicidal behaviors and social learning (imitation) in the perpetuation of subsequent suicidal behavior. As noted earlier, these two important factors have been corroborated time and again related to the phenomenon of adolescent cluster suicides. Berlin (1987) in his overview describes a series of "critical cultural factors in the etiology of Indian adolescent suicide." Included among these are failure to adhere to traditional ways of living and traditional religions, parental unemployment and alcoholism, and adoption into Anglo families. May (1987) in his review of suicide and self-destructive behaviors among American Indian youths points out that while they derive from largely independent populations, there is significant overlap between youths who attempt suicide, complete suicide, and are involved in single vehicle crashes, the areas of overlap being considered at times as "para-suicide."

Cluster Suicide in a Plains Indian Community[1]

During the 1980s, a series of suicides occurred among the teenagers and young adults of a Plains Indian community. The community is geographically remote, being several hundred miles from the nearest major city. It is further unique in that it is home to multiple tribes, the total population numbering several thousand individuals. Unemployment has been reported at approximately 80%. The annual suicide rate is known to be somewhat high, approximately 50 per 100,000; that is, approximately two to three suicides occur each year on the average. The occurrence of nine consecutive suicides over an 8-week period of time was altogether unexpected for the residents of this community, however.

The nine suicides provide an example of a suicide cluster, a series of suicides approximated in place and time, and related to each other in one or more ways. Additionally, it provides an example of a suicide cluster in an American Indian community, and as was previously described there are culturally specific factors related to age, gender, tribe, and other variables that distinguish American Indian suicide patterns from patterns across cultures.

The demographics of the cluster were as follows. All of the victims were males. All of the victims were teenagers or young adults. All of the victims except one were members of the same tribe. All of the victims died by hanging. In addition to the nine suicides over the 8-week period of time, there were four additional suicides in the community in the same year (one before and three after the cluster). Those four victims were also young males, of the same tribe and all died by hanging.

A retrospective review of the victims' histories revealed the presence of some of the risk factors known to predict suicide among adolescents. The early teenage victims tended to be physically and intellectually well developed. All of the victims in the midst of a cluster in a closed community had significant exposure to, and personal experience with, the phenomenon of suicide itself. All of the victims were male. Alcohol was acutely involved in half of the suicides, and chronically involved in a higher percentage.

Further review of the victims' histories revealed the presence of some of the risk factors described as common to American Indian adolescent suicide. The young male profile of the modal victim was consistent with the age and gender pattern of Indian suicide. Instability of family relationships and home environment was commonly observed. Individual and parental alcoholism and unemployment were significantly represented. There was widespread recognition within the community that traditional ways were failing to be maintained over time.

Most apparent in review of the victims' histories, however, was the definite and striking presence of interrelationships among the victims (Figure 1). These were not a series of independent and unrelated suicides, but rather a definite cluster, related not only in space and time but etiologically as well. While certain known risk factors were present in some of the victims, other victims manifested no known risk factors except personal ties to earlier victims in the cluster. In these individuals, the major etiologic risk factor appeared to be the imitation of suicidal behavior.

Victim 2 died 2 weeks after victim 1. He was a good student and had been a pall bearer at the funeral of victim 1. His girlfriend was victim 3's first cousin. Victim 3's girlfriend was victim 1's sister. Victim 3 died 4 days after victim 2. Victim 4 died 1 month after victim 3. He was friend of victim 3's mother. Victim 5 died the same day as victim 4. He had no overt relationships with any

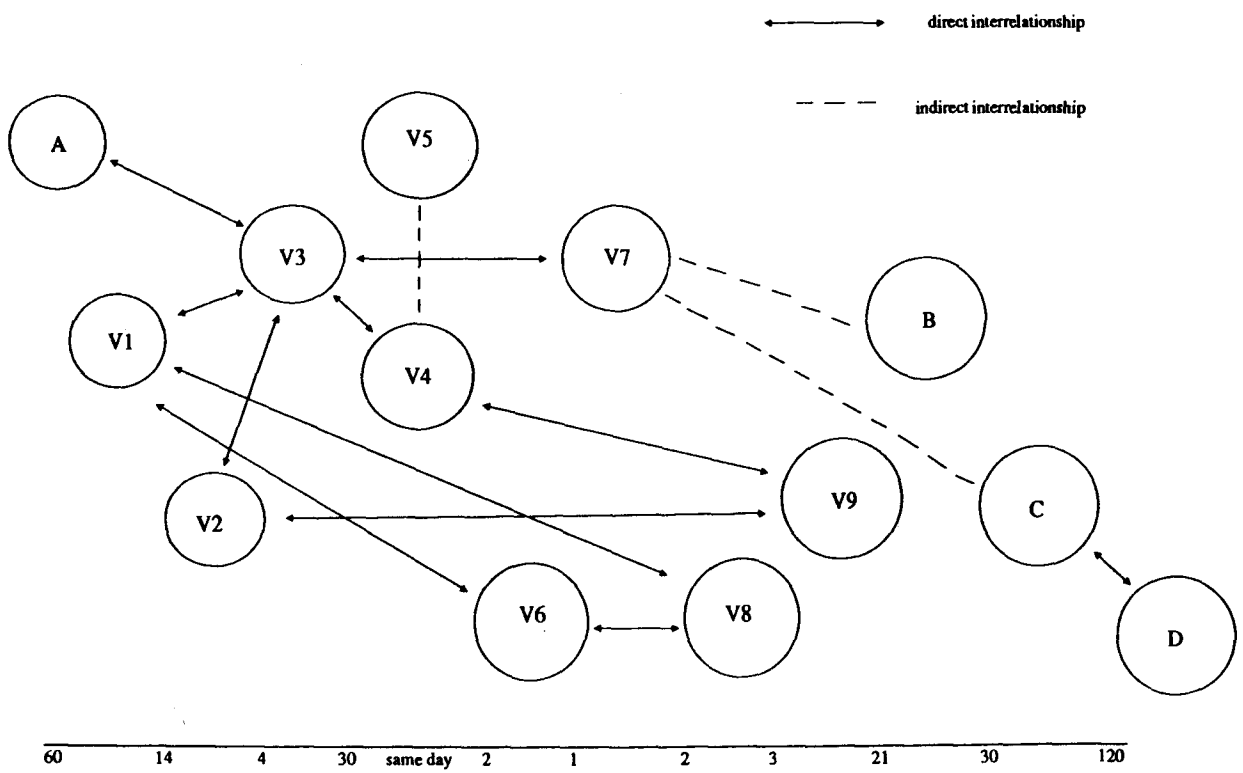

Figure 1. Interrelationships between suicide victims including a timeline of the number of days occurring between each suicide.

of the previous victims, however, appeared to have been influenced by media coverage of the earlier suicides. Victim 6 died 2 days after victims 4 and 5. He was good friends with victims 1 and 3, had stayed previously with the family of victim 3 and had attended the wake of victim 1 with victim 3 and victim 3's girlfriend (victim 1's sister). Victim 7 died 1 day after victim 6. He was a good student and had no known suicide risk factors except having been close friends with victim 3. Victim 8 died 2 days after victim 7. He was friends with victims 1, 4, and 6. Victim 9 died 3 days after victim 8. He had no known risk factors except being a first cousin to victim 2.

Additional cluster ties can be described as well. Victim 1 died 2 months after the last previous suicide (victim A) in the community. Victim A's wife was a first cousin to victim 3. Three weeks after the death of victim 9, victim B hung himself away from the community. Nonetheless, victim B was a member of the involved tribe and was a young male. He was acquainted with the other victims in his age group and had been back to the community the week previously. He had closely followed the heavy media coverage in the community where he was then residing. Victim C was a young male from the involved tribe who hung himself 2 months after victim 9. Victim D was also a young male from the involved tribe who hung himself 4 months after victim C. Victims C and D were brothers.

Implications

Much has been written about adolescent suicide prevention strategies in the general population. Specific to American Indian communities, less has been written, and in particular there is a paucity of literature surrounding intervention strategies during a suicide cluster. The experience of this community provides a number of empiric clues regarding the development of an intervention strategy. The first stage in this community's strategy was to describe the characteristics of the modal victim. Mental health resources were limited in this as in most communities, and individual outreach to each member of the community could not be accomplished. The highest risk profile needed to be delineated, refined, and reduced until a more workable number was achieved. The limited mental health resources could then be prioritized and delivered first to those at highest risk for perpetuating the cluster.

In this case, all females could be eliminated from the highest risk profile. Strengthening this assumption was the knowledge that among Indians even more than the population at large, suicide is most often a male phenomenon. (At the present time, several years after the suicide cluster, there have been no subsequent female suicides.) Members of all tribes except one could be eliminated from the highest risk profile. Only a single suicide had occurred

outside of that tribe; 12 of the 13 suicides occurring in the community that year were members of the one tribe. Male members of the involved tribe could be excluded from the highest risk profile if they were outside the age parameters of 13 and 28; all the suicides occurred within those parameters. The age-specific pattern of Indian suicide added further support. (All subsequent suicides in this community have continued to fall within those age parameters.) The highest risk profile was defined as a male from the one tribe whose age was between 13 and 28. Any individual fitting that profile was a prioritized recipient of mental health services.

Prioritization could be refined even further, however, by review of the interpersonal networks of the victims. As was described, the interrelationships among the victims' networks were marked. It was clear that the risk of any individual in the highest risk profile was increased if he was in the interpersonal network of any of the victims. The more networks he was in, the greater the enhancement of his risk. Stated another way, the greater the similarity between an individual and a victim, and the greater that individual's exposure to suicidal behavior, the greater the likelihood of his imitating that suicidal behavior in the midst of a suicide cluster.

In conclusion, the lessons to be learned from this experience include the following. Practitioners in Indian communities need to acquire an understanding of the risk factors for adolescent suicide. They further require an understanding of the culturally specific pattern of Indian suicide. They must be aware that cluster suicide is a phenomenon that cuts across culture and borrows from both databases. Traditional prevention strategies are not applicable and perhaps contraindicated in the midst of a cluster. A cluster must be recognized and identified at its earliest possible point. Intervention strategies require elucidation of the highest risk profile and prioritization and delivery of mental health resources to those at highest risk for perpetuating the cycle through imitation. The contagion associated with suicide clusters provides them a life unto themselves. Young lives can be saved by breaking the self-perpetuating cycle before it runs its natural course.

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Note

1. Minor details have been altered to respect the confidentiality of the community and families involved. The salient principles, however, remain unaffected.

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Publication Announcement

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SUICIDE IN ALASKA FROM 1978 TO 1985: UPDATED DATA FROM STATE FILES

NORMA FORBES, PhD, and VINCENT VAN DER HYDE

ABSTRACT. Based on revised data resulting from improved quality control measures, this study reveals an average increase of 38% in the number of suicides recorded from 1978 through 1985 in Alaska. Excluding 1979, Alaska's suicide rate was among the top four in the United States. No significant decrease has occurred in the Alaska Native suicide rate since 1978. The problem is particularly serious for younger males (more than 6 times the national rate of Caucasian males). The study concludes with two hypotheses which require the availability of more accurate data prior to 1978, emphasizing the importance of continuing this data updating process.

In early 1985, the research unit of the Division of Planning, Alaska Department of Health and Social Services, became aware that the data generated from computerized data files for violent deaths were incorrect. Following an initial inquiry from the Fairbanks area, the research unit conducted a pilot study of 1983 suicides in that area and identified 13 suicides previously not identified on the statistical tape. On the basis of this information, the Director of the Division of Planning authorized a review and update of the statewide suicide database.[1] It should be noted that the study deals with the under-recording of violent deaths, rather than the under-reporting, although both affect the quality of the data.[2]

The under-recording of violent deaths in the state's vital statistics computer files results in the undercounting of the number of violent deaths in state publications, such as the Annual Vital Statistic Report.[3] As is the case with distortions of health data in any area of concern, this undercounting may have serious consequences for appropriate funding of programs, for evaluating the effectiveness of existing programs, and for planning and prioritizing future programs.

There are a number of steps between the initial recording of a death by a physician or funeral director and the inclusion of that death in a published research report. Errors and omissions may occur at any step in the process. At several points in the current system delayed information could be sidetracked and not make its way onto the appropriate data file.

In order to correct the information on violent deaths including suicides in the statistical files, the research unit examined each death certificate in the vault for the years 1959 through 1984.[4] For the years 1978 through 1984, 202 queries requesting additional information were sent to the recording districts. In addition, several hundred changes were requested based on discrepancies between the certificates and the computer files. The majority of the errors involved the smaller rural recording districts. As a result, a disproportionate number of incorrectly recorded death certificates were those of rural Alaska

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1(3), MARCH, 1988, pp. 36-55.

Natives in which cause of death should have been suicide or homicide. The White suicide count increased an average of 21%, while the Native count increased an average of 76%.

One of the problems involved in accurately determining trends and relationships for Alaskan suicide is population size. For statistical purposes, the number of suicide deaths in Alaska in any particular year is very small and predictions based on small numbers are subject to errors due to chance variation.

Table 1

Change in Resident Suicide and Homicide Counts for 1978-1983 After Suicide Study

Year	# Suicides VSAR	# Suicides Post-Study	Percent Increase	# Homicides VSAR	# Homicides Post-Study	Percent Increase
1978	59	88	49%	60	62	3%
1979	53	62	17%	48	52	8%
1980	72	84	17%	33	38	15%
1981	66	88	33%	50	59	18%
1982	62	85	37%	57	79	36%
1983	88	95	18%	63	70	11%

Note. VSAR refers to Annual Vital Statistics Report for the year concerned. The initial count for 1983 prior to the Suicide Study was 55. However, most of the Suicide Study corrections were incorporated in the records prior to the publication of the 1983 report. The improved count (from 55 to 95) as a result of the Suicide Study produced a 73% increase in recorded suicides.

The frequencies and rates reported here are those of deaths of Alaskan residents, both in and outside of Alaska which have been legally determined to be suicides. These figures were taken from the corrected data files of the Bureau of Vital Statistics as of February, 1988. Future reports may indicate one or two more suicides in a particular category as the results of prolonged inquests are submitted, as previously undiscovered bodies are found and determined to have been suicide, or as additional quality assurance procedures are implemented.

Suicide in the United States[5]

Suicide in Alaska can be placed in perspective by looking at suicide in the nation as a whole. Between 1957 and 1977 there was an upward trend in United States suicide rates which leveled off after 1978. Since 1978, the national rate has been about 12 suicides per 100,000 population with relatively little fluctuation from year to year. The magnitude of the problem and the patterns of its occurrence differ between the sexes. Suicide rates for males are much higher than those for females. For males, suicide rates tend to increase with age, while rates for females increase through ages 45 to 54 and then decrease. Between 1970 and 1980, suicide rates for older persons in the United States decreased,

while those for younger persons increased, resulting in a flatter curve for rates by age group. The change in rates for younger persons was not the same for females as for males. In the 15- to 24-year age group, rates for males increased 50%, while female rates increased only slightly in the same time period. In the next older age group (25-34), male suicides increased 30%, while the rate for females decreased. The sharp increase in rates for males 15-24 years old appeared in all but two countries of the European Economic Community as well. Australia and Canada also have experienced sharp increases in suicide among the young.

The increase in suicide rates in the United States primarily is the result of more suicides among Caucasian males. Suicide rates are relatively low among Blacks and Asians. Although the suicide rate for American Indians is higher than that of other minorities, they constitute a small percentage of the total population and have little impact on national rates.

Completed suicides are much more common among males than females, however, attempted suicides are several times as common among females. In 1980, the age-adjusted completed suicide rate for males was 3 times that for females. Within the younger age groups, the disparity between the sexes is even greater.

Young adults, 20-24 years old, had approximately twice the number and rate of suicides as adolescents 15-19 years old. Adolescents and young adults are particularly at risk in the western United States, which has had consistently higher suicide rates than the balance of the U.S. For every age group beyond the age of 5, suicide is among the 15 leading causes of death. However, it is of special concern regarding adolescents and young adults for whom suicide is the third leading cause of death.

The rapid increase in suicide rates among the young caused the U.S. Department of Health and Human Services to establish a specific health objective for reduction of the suicide rate among 15- to 24-year-olds. In a special publication on suicide, the Center for Disease Control (1985) states, "a problem of this magnitude requires priority attention on the part of public health agencies at the national, state, and local levels." (p. 7)

Suicide in Alaska

Alaska differs from the balance of the states in a number of ways including the size, youth, and ethnic composition of its population. As a result of the youth of Alaska's population, comparisons between death rates for Alaska and other states (or the nation as a whole) may be misleading. Alaska has few older residents and a high proportion of younger residents. The 1984 crude death rate for Alaska was 376.8, less than half of the U.S. 1984 rate of 866.8. When rates

are adjusted for the difference in age distribution of the Alaska and U.S. populations, the age-adjusted 1984 death rate for Alaska is 10% higher than the U.S. as a whole. In other words, compared to a population with the same age distribution, Alaskans have a higher death rate.[6]

Factors other than youth enter into the relationship between the crude rate and the age-adjusted rate for suicide (e.g., the distribution of suicide deaths in different age groups). Therefore, the difference between the crude rate and the age-adjusted rate in Alaska/United States comparisons tends to be smaller for suicide than for total mortality. Nevertheless, age-adjusted rates, when available, provide the more accurate comparison.

Table 2 provides both crude and age-adjusted suicide rates for comparison with the U.S. rates. It also gives Alaska's rank versus other states, based on the revised data rather than previous incorrect data listed in National Center for Health Statistics reports.[7] Nevada, Wyoming, and New Mexico have consistently ranked among the top four in suicide rates; Alaska has joined them for 7 of the last 8 years.

Alaska's high suicide rate indicates a serious health problem. However, as is the case in the U.S. as a whole, Alaskan suicide rates differ widely from one age, sex, or ethnic group to another. In order to have a comprehensive picture of the nature of suicide as a health problem in Alaska, it is necessary to look at the different groups within the population and examine rates for different age, sex, and ethnic groups. As we look at each group we will be dealing with smaller numbers of people and of deaths. This brings us back to the problem of the variance associated with small numbers and the effect of that variance on the accuracy of predictions. One way of dealing with the small number problem is to pool the cases from several years, providing more stable indications of trends. When this report deals with groups broken out by sex, ethnic, and age groups, suicide figures are presented by 3-year moving averages. For example, Figure 1 is based on an average of the years 1983, 1984, and 1985.

Table 2

Comparative Suicide Rates for 1978 - 1984 (per 100,000)

	1978	1979	1980	1981	1982	1983	1984	1985
U.S. All Races	12.6	12.1	11.9	12.0	12.2	12.1	12.4	12.3
U.S. All Races, 15-24	12.7	12.4	12.8	12.3	12.1	11.9	12.5	12.9
Alaska, All Races								
Frequencies	91	67	92	90	89	97	92	118
Crude Mortality Rates	22.6	16.7	22.9	20.7	19.1	19.5	17.6	21.9
Age-adjusted Rates	23.9	17.5	23.4	22.7	19.3	20.2	17.7	23.0
Age Group 15.24	42.3	29.2	36.5	34.1	40.7	37.3	39.3	41.8
White Males								
Frequencies	54	32	48	47	54	52	46	53
Crude Mortality Rates	32.0	19.3	29.0	26.2	28.2	25.5	21.5	24.1
Age Group 15-24	47.1	21.2	30.7	36.1	40.6	36.5	36.3	36.5

Table 2 (continued)

	1978	1979	1980	1981	1982	1983	1984	1985
White Females								
Frequencies	12	8	10	10	6	9	15	14
Crude Mortality Rates	8.2	5.6	6.9	6.5	3.6	5.1	8.2	6.8
Age Group 15-24	3.5	7.1	10.7	3.6	7.0	12.0	13.8	6.3
White All								
Frequencies	66	40	58	57	60	61	61	67
Crude Mortality Rates	21.0	12.9	18.7	17.1	16.8	16.1	15.4	15.7
Age-Adjusted Rates	24.4	12.1	20.8	21.0	16.8	18.7	15.7	16.6
Age Group 15.24	27.3	14.8	21.4	21.0	25.4	23.3	26.2	19.2
Native Males								
Frequencies	18	21	26	25	24	31	21	38
Crude Mortality Rates	57.4	65.5	79.9	76.8	67.7	83.9	54.8	100.1
Age Group 15-24	168.1	174.2	168.6	150.5	130.5	178.0	153.6	206.6
Native Females								
Frequencies	4	3	4	5	3	3	7	9
Crude Mortality Rates	13.2	9.7	12.7	15.3	8.7	8.4	19.1	24.1
Age Group 15-24	56.6	13.6	26.5	38.7	12.2	36.4	60.4	63.2
Native All								
Frequencies	22	24	30	30	27	34	28	47
Crude Mortality Rates	35.2	38.1	46.8	45.0	38.7	46.8	37.2	64.9
Age-Adjusted Rates	31.7	35.7	45.0	44.9	36.9	43.1	34.6	68.8
Age Group 15-24	112.7	94.6	98.4	95.5	72.2	108.0	107.6	134.1
Alaska's State Rank	2nd	8th	2nd	2nd	3rd	3rd	4th	3rd

Note. Alaskan residents only, in and out-of-state deaths; both Native and White rates are age-adjusted against White population for that year; U.S. rates are crude rates.

Sex Differences

As is the case in the balance of the United States, completed suicides are much more common among males than females in Alaska. The difference in rates of completed suicides between males and females has been attributed to the different methods used by males and females in attempting suicides (Centers for Disease Control, 1985). In the U.S. in 1980, 63.1% of male suicides and 38.6% of female suicides used firearms or explosives.[8] The trend among Alaskan females (as in the rest of the nation) is for a lower percentage of use of firearms and a higher percentage of poisoning than for males. The number of female suicides is small, making it difficult to define a trend in method used from year to year. As a group, a greater percentage of Alaskans than non-Alaskans use firearms. While 57% of all 1980 U.S. suicides used firearms or explosives, the percentage of Alaskans using firearms ranged between 75% and 85% for each year from 1978 through 1984.

Over the period 1978-1985, the average ratio of male to female suicides for White Alaskans was 5:1 while the average ratio for Native Alaskans was 6:1. Alaska's White population has a higher proportion of males to females than does the Native population, or the U.S. as a whole. Therefore, rates (numbers of deaths per unit of population) will give a somewhat more accurate picture than frequencies of the relationship between male and female suicides. The 1978-1985 average of rates for male suicides among Whites was 4 times that of White females; for Natives the male to female ratio was 5:1.

Ethnic Group Differences

The age distribution and magnitude of suicide as a health problem differ between Alaska Natives and their White peers as much or more than they do between the sexes. As can be seen in Figure 1, suicide is a greater problem for Alaskan Whites than for Whites in the rest of the U.S. However, the most urgent problem exists among Alaska Natives. The number of suicides within Alaska's other minority groups, Blacks and Asians, is so small (3 or fewer in any year since 1977) that no meaningful statistics can be computed.

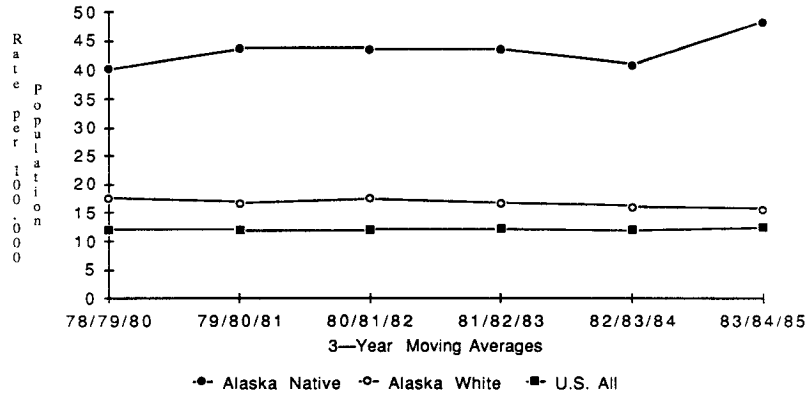

Figure 1. Suicide rates by ethnic group 1978-1985.

Note. U.S. All rates are for the mid-year referenced, (e.g. 1979 for 78/79/80). Alaska Native and White rates are 3-year moving averages.

For the total U.S. population, the suicide rate tends to increase with age but this is not the case for Alaska Natives. Suicide rates are high for Alaska Natives under 30 years of age and decrease sharply after the age of 30. This pattern has not always existed. Figure 2 is taken from Kraus and Buffler (1979) showing the age-specific rates for Alaska Natives for two time periods. The early time period, 1950-1964, shows a pattern similar to that of the U.S. as a whole (i.e., a relatively flat curve with highest rates in older age groups). The later period, 1965-1974, shows the pattern of youth suicide well established with rates highest in the age group 20-24 years old and dropping rapidly after 30 years old as shown in Figures 3 and 4.

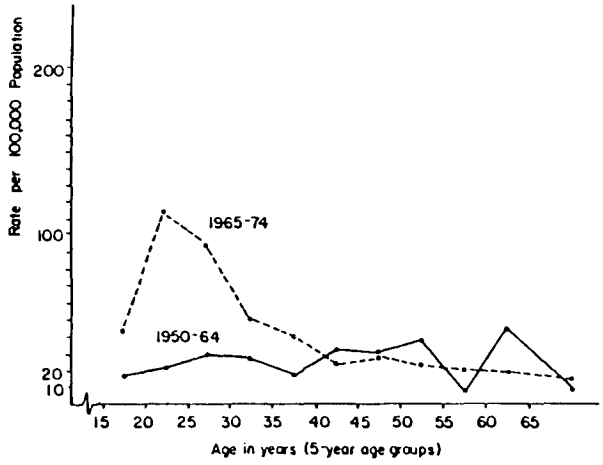

Figure 2. Alaska Native suicide rates for two time periods.

Note. From "Sociocultural Stress and the American Native in Alaska" by Kraus & Buffler, 1979, *Culture, Medicine and Psychiatry, 3.*

For males, Figure 3 points out the similarity between the age trends of Alaskan White males and the 1980 national rates for White males. The age-related trend for Alaska Native males in 1983/84/85 is much the same as the 1965-74 trend in Kraus and Buffler's figure. Figure 4 presents the age trends for females and again, White Alaskans have much the same age-related pattern as the rest of the nation. Suicides for Alaska Native females are more sharply grouped in the ages between 15 and 30. Other years between 1978 and 1985 were graphed by age group during data analysis for this report and all demonstrated the same patterns.

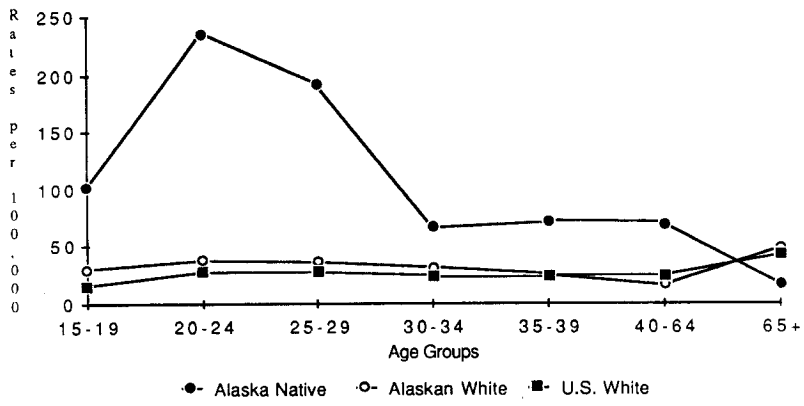

Figure 3. Male suicide rates by age and ethnic group 1983/84/85; White male data is 1980.

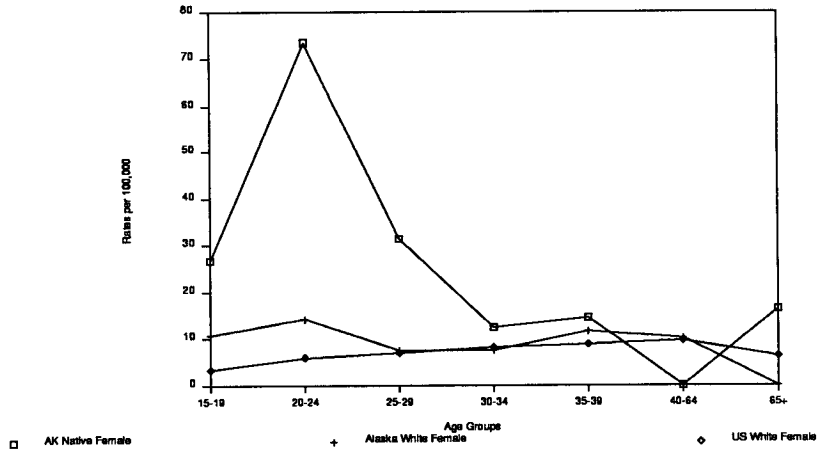

Figure 4. Female suicide rates by age and ethnic group.

Note. Alaska Native and White data are 3-year averages 1983/84/85.

Youth suicide (ages 15-24) in the U.S. peaked in 1977 and leveled off after that year (Stack, 1986). As can be seen in Figure 5, youth suicide rates for Alaskan Whites appear to have leveled off also. However, suicide rates for Alaska Native youth continue to climb.

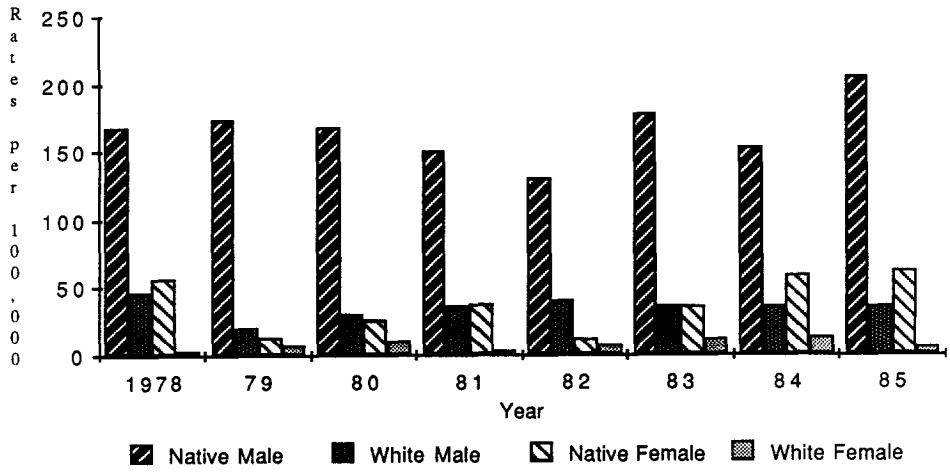

Figure 5. Suicide rates for age 15-24 by sex and ethnic group 1978-1985.

Violent death other than suicide is common in Alaska's frontier environment. Homicides and accidents are included in this discussion for two reasons. First, authorities in the field believe that as many as 50% of all accidental deaths actually may be suicides (Sudak, Ford, & Rushforth, 1984). Second, many authorities see homicide, suicide, and accidents as different expressions of the same phenomenon (Kraus & Buffler, 1979).

Looking at homicide as another expression of social disruption, the contrast between Alaska and the U.S. is even greater for homicide than suicide. Average crude suicide rates as shown in Figures 6 and 7 are almost the same for White males in Alaska (20.64) and in the U.S. (21.3); for White females (6.92) the rate is 17% higher in Alaska than in the U.S. (5.9). The average crude suicide rate 1983/84/85 for Native males (78.22) is 3.7 times higher in Alaska than for U.S. White males; for Native females (17.11) it is 2.5 times higher than their White female (6.92) peers in the U.S. Homicide rate differences are more extreme for

all groups; the White male homicide rate (9.98) is 20% higher than the U.S. rate (2.9), for Native males (38.24) the rate is almost five times higher than the U.S. White male rate, and for Native females (19.81) the rate is 7 times the U.S. White female rate (4.73). The increased risk for death by homicide which accompanies being an Alaskan, appears to be influenced by both sex and ethnic group, with the increased risk being least for White males and greatest for Native females. Looking at homicide as another expression of social disruption, note that for males, Alaska Natives and Whites, homicide rates exceed those of the U.S. Whites by roughly the same proportion as do suicide rates. The differences for females also are interesting: Although the suicide rate of Alaskan White females (5.4) is much the same as the U.S. rate (5.9), the homicide rate for Alaskan White females (5.7) is roughly twice the rate of U.S. White females (2.8). The differences are even greater for Alaska Native females who are twice as likely to die from homicide (17.3) as suicide (8.6) and 3 times as likely to die from homicide as Alaskan White females. Alaskan rates are age-adjusted against the U.S. population profile for 1983, so these differences are not the result of age differences. The difference in death rates from suicide, homicide, or accidents is so great between the two ethnic groups that comment hardly is necessary.

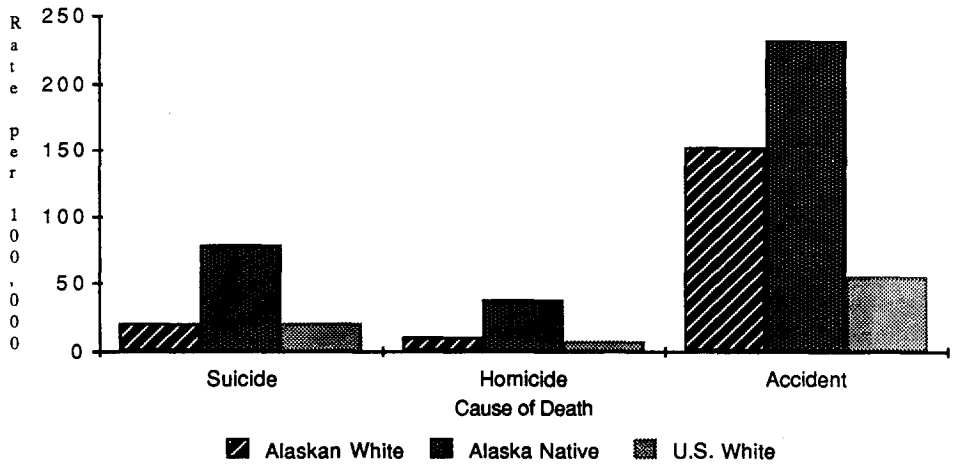

Figure 6. Male violent death rates by ethnic group.

Note. Data are averages for 1983/84/85.

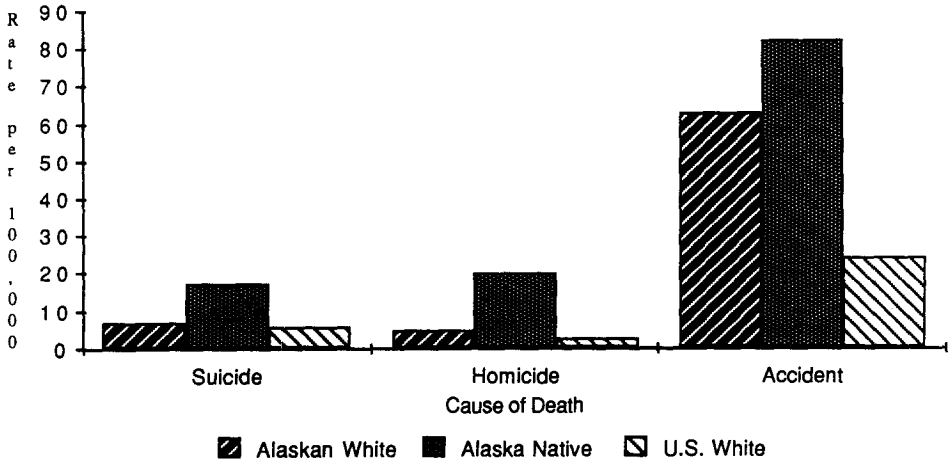

Figure 7. Female violent death rates by ethnic group.

Note. Data are averages for 1983/84/85.

Other Measures

Examination of the rates provides clear evidence of the severity of the problem for young adult male Alaska Natives. However, the differences in age and sex distribution between the Alaska Native and non-Native populations, and the complex relationships these variables have with suicide, make it difficult to present an accurate picture in a simple manner. Two measures taken from the epidemiologic literature, the Standardized Mortality Ratio (SMR) and Years of Life Lost (YOLL), may aid in clarifying the presentation.

Standardized Mortality Ratio. If Alaska's population had an age distribution similar to the U.S. as a whole, and if Alaskans were dying at a rate the same as the national rate, there would have been 1,670 deaths in 1983. Since there were 1,901 deaths in Alaska that year, it can be seen that Alaskans are experiencing a higher death rate than the U.S. as a whole. The ratio of observed deaths (1,901) to the expected deaths (1,670) multiplied by 100 is the SMR. For 1983, the SMR was 113.8%. In other words, Alaska has 113.8% of the deaths which would have been expected if their rate were the same as that experienced nationally. The percentage over 100 is often referred to as "excess" deaths. The same analysis can be applied to suicide rates for different age and sex groups. Again, the small numbers are associated with greater variance from year to year.

Table 3

Suicide Standard Mortality Ratios (SMRs) by Sex and Ethnic Group for Two Time Periods

	Age						
Group	15-19	20-24	25-29	30-34	35-39	40-64	65+
White Males							
1978-82	140	173	142	139	157	138	189
1983-85	195	136	131	133	103	107	115
Native Males							
1978-82	846	729	358	373	479	192	66
1983-85	679	841	691	284	300	280	40
White Females							
1978-82	199	107	188	124	20	104	78
1983-85	162	206	149	72	65	143	79
Native Females							
1978-82	1037	394	518	113	0	39	0
1983-85	811	1233	455	150	163	0	261

In particular, the number of female suicides is so small that it was necessary to combine 5 years (1978 through 1982) in order to provide even crude comparisons. Two time periods are presented in Table 3: 1978 through 1982 and 1983 through 1985. The mid-year for 1978-82 is 1980, which makes it possible to compare directly with 1980 national data. Data presented in a three-way breakdown (age, sex, and ethnic group) is available only for 1980. The SMRs for 1983 through 1985 provide a more current contrast with national data for 1980. Note in Table 3 that the number of suicides for Alaska Native males age 15 through 19 is over 8 times, and number for Alaska Native males 20 through 24 over 7 times, what it would be if their rate were the same as that experienced nationally.

On a national level, these are the age groups which have been identified as having a suicide rate which constitutes a major public health problem and a priority objective for action. How shall we describe the extent of suicide as a health problem for Alaska Native youths with a suicide mortality many times as high? Alaskan White male suicides also are higher than expected. However, the difference is much smaller than that for Alaska Natives.

The SMRs in Table 3 illustrate the fact that suicide is a serious public health problem for females as well as males in Alaska. As low as the absolute numbers are (normally less than 10 per year), the SMRs demonstrate that suicide is a greater problem for females in Alaska than in the rest of the U.S., particularly for Alaska Native adolescent females. The absolute numbers of suicides and the severity of the problem are greater for males in general with the most serious problem existing in the under 30 age groups. The small number of deaths in Tables 3 and 4 account for the variability of SMRs shown. Because of that

variance, no single SMR should be used to predict mortality for any group. However, examination of the tables and figures for years other than 1979 through 1982 demonstrates that the relationships between ethnic, sex, and age groups within Alaska and between Alaska and the rest of the nation are consistent.

Years of Life Lost. This is a common measure used in the health-related disciplines to arrive at a standardized measure to evaluate the relative severity or impact of various causes of death. It emphasizes the loss of potential contribution to society rather than the individual lives lost. In previous sections of this paper, the frequency with which suicide occurs, trends in suicide deaths, suicide rates, age-adjusted suicide rates, SMRs, and the relationship of these data to sex and race have been discussed. While it is clear that among the violent causes of death, accidents outnumber both suicides and homicides by a factor of 2.5 to 1, it is revealing to look at the average number of years of life lost both for different causes of death, and by sex and ethnicity.

Table 4

Average Years of Life Lost by Cause of Death, Ethnicity, and Sex, 1977-1984

Group	Accidents	Suicides	Homicides	All Others
Native Females	36.7	41.0	37.6	28.7
Native Males	35.7	37.9	35.9	26.6
White Females	37.6	32.3	33.9	21.9
White Males	33.7	32.1	31.0	19.8
Average by Cause of Death	34.9	34.3	34.3	23.0

Table 4 presents data on the average number of years of life lost during the period 1977-1984 for the causes of death indicated, being 34.9 for accidents, 34.3 for suicide, 34.3 for homicide, and 23.0 for all other causes of death. To arrive at these figures, a standard life expectancy of age 65 was assumed for both sexes and ethnic groups.

Focusing on suicide and looking at the relationships by sex and ethnicity show that the influence of ethnicity is significantly greater. The difference between Alaskan White males and Alaskan White females is, on the average over the 8-year period, not significant (32.1 vs. 32.3 years of life lost). The difference between Alaska Native males and Alaska Native females over the 8-year period is more significant, with an average difference of 3.1 years of life lost. Large and more significant differences are found on the basis of ethnicity. The difference between Alaskan White male and Alaska Native males over the 8-year period is some 5.8 years of life lost, while the difference between Alaskan White females and Alaska Native females is 8.7 years of life lost.

Similarly, when looking at the total number of years of life lost, Alaska Natives are disproportionately represented in the suicide category. While comprising only 16% of the state population over the period 1978-1984 Alaska Natives contributed almost 38% of the total number of years of life lost due to suicide, more than twice their population figure.

Finally, we look at the rate of years of life lost per 1,000 population in Table 5. This method standardizes the suicide data to account for the different sizes of the Native vs. White and male vs. female populations. In all cases the rates for Alaska Native males are substantially higher than for other groups. Again focusing on suicide, the Alaska Native male rate of years of life lost is 2.5 times higher than for Alaskan White males, and nearly 3.5 times higher than for Alaska Native females.

Table 5

Rate of Years of Life Lost by Cause of Death, Sex, and Ethnic Group, 1978-1984

Group	Accidents	Suicides	Homicides	All Others
Native Females	186.0	35.8	53.1	244.0
Native Males	640.7	182.2	118.4	334.7
White Females	68.1	14.2	15.4	99.0
White Males	260.5	55.2	29.2	143.7

Note. Based on 1981 population; rate is per 1,000 population.Other Risk Factors

Much of the research on suicide has been directed toward identifying characteristics of populations-at-risk. The preceding discussion has demonstrated that risk is greater for some age, sex, or ethnic groups than others. Research also has identified alcohol use, unemployment, size of age cohort, and loss of a friend or family member as factors related to suicide.

Experts in the field agree that alcohol consumption plays a significant role in suicidal deaths (Sudak et al., 1984). The percent of alcohol-related suicide attempts among Alaska Natives between 1971 and 1977 ranged from 39% to 86% per year (Kraus & Buffler, 1979). In a later study by Kost-Grant (1983), 20 of 34 Alaska Natives (59%) who had survived a self-inflicted gunshot wound had been using alcohol at the time of the shooting. Seventy-nine percent of Alaska Native suicides tested in 1983 and 1984 had detectable levels of blood alcohol, compared to 48% of White suicides for those years (Hlady & Middaugh, 1986). Frederick (1975) estimated that 75-80% of all completed American Indian suicides in the U.S. were alcohol related.

Unemployment has been linked to suicide in a number of studies. Travis (1984) hypothesized that the difference in suicide rates between the Northwest Alaska Native Association and the North Slope Region was causally linked to the difference in employment rates. However, Travis' analyses were based on the erroneous count of suicide deaths prior to the Suicide Study and his results may be altered by reanalysis based on the corrected count.

One hypothesis presented to explain the observed increases in youth suicides is the age cohort hypothesis which relates increases in the size of the adolescent population and the proportion of adolescents in the population to the suicide rate for that age group (Holinger & Offer, 1981). This hypothesis appears to be supported by the increase in suicides among the young in the U.S. as a whole, in Alaska, and in some parts of the South Pacific. However, other research reported in Sudak et al.'s (1984) review of the literature does not support Holinger and Offer's hypothesis.

On the other hand, loss of a friend or family member, particularly by suicide, is recognized as one of the most significant factors predicting suicide. For that reason, the occurrence of a suicide in any community should mobilize mental health resources to provide appropriate services to the bereaved family and community.

Other Alaskan Research

The research procedures of Kraus and Buffler (Kraus, personal communication, November, 1985) provided them with a suicide count for the years 1950 through 1974 which is not likely to be altered significantly by changes in the suicide database. Their series of papers constitute the definitive work on suicide and other violent deaths among Alaska Natives and provides information on trends and relationships which continues to be a reliable substitute for analyses which are planned for the as-yet-uncorrected 1959-1977 data.

Figure 8 illustrates trends across the years 1951 to 1975 for Alaska Natives, and comparison populations 1960-1975, based on Indian Health Service (IHS) data and on data from Kraus (Blackwood, 1978). Blackwood's use of data from Kraus provides a more accurate estimate than use of IHS data alone. The scale from Blackwood's study has been extended to allow the addition of data from 1978 through 1985 from the current suicide study. Unfortunately, the updated rates for 1976 and 1977 will not be available until the second phase of the suicide study is completed. Figure 8 graphically illustrates the continuing rise in suicides among Alaska Natives. Although there is a small decrease in the average rate for 1982/83/84, the difference is not statistically significant and probably reflects the chance variance associated with small numbers.

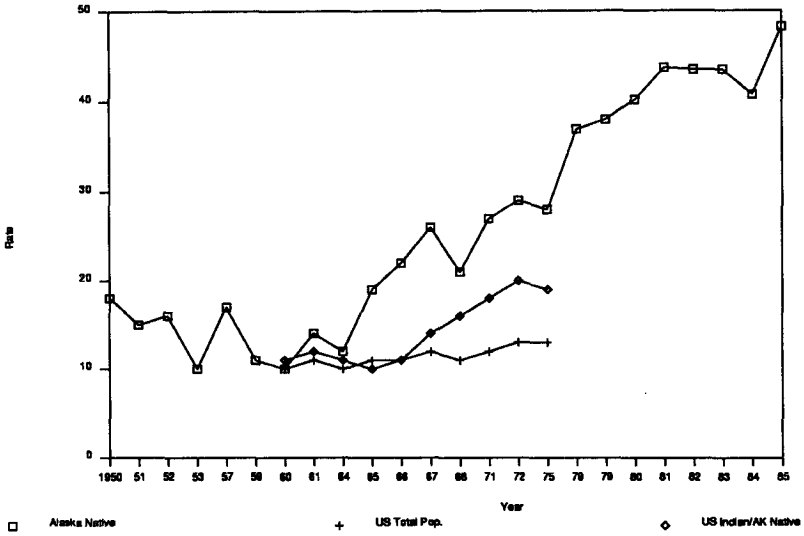

Figure 8. Crude suicide death rates: Alaska Natives 1951-1975 and 1978-1985.

Note. Adopted from Blackwood, L. (1978). *Health problems of Alaska Natives*, Alaska Area Native Health Service. Data presented (1978-1985) is in 3-year moving averages. Years listed on x-axis are mid-years for 3-year averages.

The 1985 Alaska Native Health Board (ANHB) report on suicide states that "From 1976 to 1982, however, the rate [for Alaska Natives] declined dramatically from 43.6 to 23.5 per 100,000" (p. 57). The data used to support that statement are taken from a table prepared by the Alaska Area Native Health Service, Program Formulation Branch, Statistics Section. The Statistics Section in turn bases its table on NCHS figures relayed to them by the national office of the IHS. NCHS figures undercount Alaskan suicides because they do not include as suicides those deaths determined through inquest or autopsy to be suicide after the original death certificate is filed. Unfortunately, the conclusion that Alaska Native suicides are decreasing reached by the authors of the ANHB report is in error. Based on the same erroneous data the 1986 Indian Health Service report, *Indian Health Care* states, "The Alaska crude mortality rate from suicide declined between 1972 to 1982..." (U.S. Congress, 1986). The same report lists the average crude suicide rate for Alaska Natives as 21.3; the correct figure is 43.5. IHS funding decisions based on such data have a potentially profound impact on the health care of Alaska Natives.

American Indians

Most of the comparisons made so far have been between Alaska Natives and Alaskan Whites or U.S. Whites. American Indians also have high suicide and violent death rates among the young. As Kraus and Buffler point out in their 1979 paper, the violent death rate for Alaska Natives seems to be a phenomenon affecting American Indians in general. Yet for suicide, as distinct from homicide and accidents, there is considerable variation among American Indian groups. McIntosh and Santos (1981) indicate that the Navajo and Chippewa, the two largest tribal groups of non-Alaskan American Indians, have a low suicide rate. However, they also point out that despite tribal differences, "Indian suicides are... in the younger age ranges than is the case for the population as a whole. For Indians, suicides usually peak in the twenties or early thirties and consistently decline thereafter with age" (p. 305). For Alaska Natives, Kraus and Buffler (1979) identify suicide among the young as an emergent pattern manifesting itself primarily after 1965 and attribute the rapid increase in the overall Alaska Native suicide rate since 1950 to suicide among the young. Havighurst (1971) and Ogden, Spencer, and Hill (1970) have commented on the same pattern among non-Alaskan American Indians (i.e., a strikingly high rate of suicide among young people as compared with non-Native Americans and lower rates among older American Indians). However, Shore (1975) demonstrated that annual suicide rates vary more than 10-fold from tribe to tribe and the stereotype of the suicidal American Indian is misleading and an oversimplification.

Unfortunately, data on American Indian suicides for the last 5 years are not available, although isolated cases of American Indian adolescent suicides of epidemic proportions are reported in the popular press and only recently in the scientific literature (see Bechtold in this issue). The IHS figures do not provide a satisfactory comparison because (a) the IHS provides services for only about 60% of American Indians, and (b) their national figures for American Indians are taken from the NCHS. Figure 8 combining the trends reported by Blackwood for 1950 to 1975 and the suicide study data for 1978-1984 suggests that suicide is a much more serious problem for Alaska Natives than for American Indians outside Alaska.

Summary

Sociocultural stress associated with rapid change continues to be identified as the cause of increased suicide among the young in many settings. However, rapid social change is not a useful explanation when the design of effective prevention programs is the desired outcome. As noted in the Report of the Secretary's Task Force on Black and Minority Health (Department of Health and Human Services Task Force, 1985), "an increasing body of research suggests that the ways an individual copes with stress and the resources available to resolve stressful situations, rather than the stressor itself, play the more important role in health outcome" (p. 47).

Although 47 Alaska Natives committed suicide in 1985, more than 75,000 did not, even though they also were exposed to the stress associated with rapid social change. There is an urgent need to identify specific factors in the lives of those who choose suicide so that more effective prevention programs can be designed. This type of research cannot be done from computer tapes. For example, we do not know whether one Alaska Native group currently is more vulnerable to stress, or more likely to choose suicide as a response to stress, than another. Because ethnicity is so loosely defined on a death certificate (usually just as White or Native) we cannot obtain the desired information about ethnicity without individual case studies. Nor do we know accurately whether those Alaska Natives who commit suicide in regional or urban centers are transients or long-term residents because those who make out death certificates are unlikely to know the decedent's life history. This type of research is expensive, time consuming, and greatly needed.

Two research questions which can be answered from the computerized data are (a) investigation of the hypothesis stated in the ANHB report indicating that the construction of the oil pipeline was associated with an increased rate of suicide, and (b) the cohort effect. The cohort effect refers to the hypothesis that the increase in suicide rates is specific for certain generations, that is, each generation or age cohort starting out with a higher suicide rate maintains higher rates as the individuals in that generation grow older. Murphy and Wetzel (1980) reviewed official statistics for the U.S. over the past 30 years and found that each successive 5-year age cohort started out with a higher suicide rate than the one preceding it and maintained higher rates at every age. If the age cohort hypothesis is valid in Alaska, intensive services for members of the generations currently in the age group of 15-30 years will need to be maintained for many years in the future.

In order to test the age cohort and pipeline hypotheses, the computerized data files for 1959 through 1977 will need to be corrected and analyses performed. Correcting these older files will be more difficult, particularly for rural areas, because many records of coroners' files will not be available. However, the

severity of the problem of suicide in Alaska together with the evidence now available indicating the Alaska Native suicide rate is not decreasing, place a high priority on the availability of more accurate data for the years before 1978 and increased quality control for current years.

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Notes

1. This study and the subsequent changes in the computer files were done with limited staff and funding resources. For that reason, it was decided to limit the study in its initial phases to the data for 1978 through 1984. The data for 1959 through 1977 will be investigated when funding is available.

2. Under-reporting is a chronic problem whenever and wherever suicide is studied, and is estimated to be as high as 40% on a national basis. Variation in the number of suicides reported by different sources arises from the fact that different sources (e.g., state patrol data, official death certificates, inquest and autopsy reports, medical records) are counting different but overlapping sets of events. Further differences result from counting deaths by residence of the decedent as opposed to the counting of deaths by place of occurrence.

3. The Division of Planning has created a Vital Statistics Data Base Coordination Committee (VSDBCC) to address some of the problems of data processing which have emerged in the past year and to improved system coordination. The Committee includes the registrar, vital statistics programmer, and division research analysts, a representative of the commissioner's office, and users such as the state epidemiologist and the state demographer.

4. The improved counts as shown in Table 1 do not include suicides by out-of-state residents which occur in Alaska. Suicide in Alaska by an out-of-state resident is more common than a suicide by an Alaskan resident occurring out of state. Residents of other states committed suicide in Alaska an average of 4 times a year from 1978 through 1984.

5. Data in this section is taken from Suicide Surveillance, 1979-1980, Centers for Disease Control, 1985.

6. Age-adjusted rates in this report have been computed against the national population profile for the year in question.

7. National Center for Health Statistics annual reports titled "Advanced Report of Final Mortality Statistics".

8. Although the ICDA category classifies explosives with firearms, less than 1% of the deaths in that category are due to explosives.

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HELPING COMMUNITIES ADDRESS SUICIDE AND VIOLENCE: THE SPECIAL INITIATIVES TEAM OF THE INDIAN HEALTH SERVICE

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ABSTRACT. The Special Initiatives Team of the Mental Health Programs Branch, Indian Health Service, was formed to provide crisis and prevention consultation to American Indian/Alaska Native communities in response to violent behaviors: suicide, homicide, domestic violence, child abuse, child sexual abuse, elder abuse, and other forms of family and community violence. The team incorporates cultural and historical factors in assisting communities to develop programs to combat violent behaviors, and encourages community-based, community-controlled efforts.

Violent behaviors in the United States, recognized as major public health problems, include suicide, homicide, injuries inflicted by self or others, spouse abuse, rape, child abuse, child sexual abuse, and elder abuse (Rosenberg, Starke, & Zahn, 1986). Among American Indians and Alaska Natives, violent behavior constitutes a serious array of problems affecting individuals, families, and communities. Although rates fluctuate across communities, between 1981 and 1983, age-adjusted suicide and homicide rates for all American Indians were 1.5 and 2 times higher, respectively, than for the United States, all populations (National Center for Health Statistics [NCHS], 1985). Concerning child abuse and neglect, there is a wide variation in incidence from one tribe to the next. Like many social variables, child abuse and neglect are difficult to measure. However, available statistics indicate that off-reservation American Indian cases are reported at a rate of 5.7 per 1,000 children (Fischler, 1985). Two reservation studies, Navajo and Cheyenne River Sioux, have yielded rates of 13.5 and 26 per 1,000 children, respectively (White, 1977; Wischlacaz, Lane, & Kempe, 1978).

Most forms of violent behavior among American Indians and Alaska Natives have not been adequately measured. It is clear, however, that these forms of violent behaviors, either through increasing numbers and/or reporting of cases, have grown visibly and have become significantly more common among American Indian communities over the past 2 decades. When studied systematically, violence in all its forms is likely to reflect intergenerational patterns associated with alcoholism, poverty, low self-esteem, and/or family history of violent behaviors (Berlin, 1986).

Where violent behaviors hurt but do not destroy life, an American Indian community may deny that such problems exist or, when recognized, may feel helpless to address them effectively. These communities often experience chronic or endemic crises as expected, normative behaviors; the crises have lost their shock value because the community is in continuous mourning. Aware of

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these individual violent episodes, the community may be so desensitized to violent acts that they are unable to perceive the patterns of violence across families and generations, or the inherent strengths in the community itself that can be mobilized to counter such violent behaviors.

The Special Initiatives Team (SIT) of the Mental Health Programs Branch, Indian Health Service, was formed to provide assistance to tribes and American Indian/Alaska Native communities--reservation, rural, and urban--which are concerned about violence issues and wish to address them. This paper outlines the philosophy which created SIT, explains the method of operation, and describes some of the projects with which SIT has been involved since its inception in 1987. It also emphasizes the team's commitment to community-based and community-controlled programs which reflect local positive values, cultural strengths, and the belief that individuals, families, and communities can effect positive change.

History of the Special Initiatives Team

The SIT concept grew out of widespread concern by American Indian/Alaska Native tribes and communities and the Indian Health Service (IHS) for suicide epidemics and suicide clusters, which brought national media attention to one tribal community in 1986. In August of that year, the Director of IHS, Dr. Everett Rhoades, called together a Task Force on American Indian/Alaska Native Suicide. The charge to the task force was to develop goals, objectives, and recommendations that would effectively address and help prevent suicide among American Indians and Alaska Natives. The task force recognized the need to consider all forms of violent behavior because, in their opinion, suicide per se cannot be separated from other violent behaviors. The goal of the task force was to assist local communities in addressing the problems of morbidity, mortality, and dysfunction resulting from violent and self-destructive behavior. The specific objectives were (a) to assist all IHS and tribally served communities in assessing the magnitude of the problem, (b) to decrease the perception of violence being an acceptable behavior, (c) to redirect (in an appropriate manner) the IHS commitment and resources toward dealing with violent and destructive behavior in the communities, and (d) to monitor key indicators in an ongoing evaluation process.

The recommendation responsible for the formation of SIT called for a "national crisis response team" to help local communities address outbreaks of violent and self-destructive behaviors (Indian Health Service Task Force on Suicide, 1986). The first team member joined the Mental Health Programs Branch in November,

1986. Other members were recruited through March 1987. The team planned extensively for methods of field operation and response to requests to address violent behaviors, and began full field operation in June 1987.

Although SIT has the capacity to respond to community crises involving violent behaviors, the team has developed a community consultation approach through prevention modalities. Services offered by the team include assistance, consultation, and referral on (a) program planning, development, and evaluation; (b) mobilization of resources, such as consultants, materials, and programs, including assistance with the development of proposals for outside resources; (c) development of data collection methods and analysis to document incidence of violent behaviors, and assessment of the effectiveness of community programs/efforts against violence; and (d) analysis of local needs to assist in redesigning/developing programs against violence.

Crisis intervention services include assistance with the assembly of information about crisis and developing methods for addressing it. Emphasis is placed on recognition and utilization of community strengths and identification of potential resources to address the crisis and prevent its recurrence. It has been the experience of the team thus far, after less than a year of field operation, that requests for outside assistance in response to crisis intervention will occur only after the team has earned the trust of the community, based on previous exposure through program development and other prevention efforts. Such trust has developed in those communities where the team has provided assistance by making contact and/or site visits regularly and consistently as programs unfold.

Operating Philosophy of the Special Initiatives Team

The basic premise underlying the operating philosophy of the SIT is that the community contains the strengths and expertise to address violent behaviors effectively. Consultants from the outside can be catalysts and assistants but, when the community is willing to take action against violent behaviors and the values and conditions that underlie them, the community is the expert.

Taking responsibility to address these problematic social issues does not mean that the community is to blame for its violent situations. The difficult and painful treatment of American Indian populations historically has resulted in poverty, isolation, problems with alcoholism, low self-esteem, and a unique status in relation to the United States government (Berlin, 1986; Deloria & Lytle, 1984; Unger, 1977). All of these social issues are associated directly or indirectly with violent behaviors, and are antithetical to views which "blame the victim." Rather, communities which ask themselves to take responsibility for addressing their social problems acknowledge the strengths inherent in a common community history and cultural framework.

Before such acknowledgement occurs, community leaders and health providers may be so embroiled in a crisis that they do not see the strengths either in themselves or in the community which may be called upon to help. Outsiders may view community leaders and members as apathetic in relation to violent behaviors whereas, in actuality, the community may be stunned by chronic violent episodes. In this arena, outside consultation and creative tribal leadership can join forces to help community leaders and health providers reframe their views from one of hopelessness in dealing with these problems to a vision encompassing the ability to instigate positive social change.

Based on prior clinical and community education experience among American Indians, the SIT has found that communities, very much like individuals and families, may go through three basic stages when faced with crises or severe social problems. The first stage is one of denial, where such problems are not acknowledged. Such denial is extremely frustrating for local health providers who, called upon to treat these problems regularly, experience little support from tribal leadership and the community at large. In fact, local health providers, be they tribal, IHS, Bureau of Indian Affairs (BIA), or other service providers, are sometimes seen as part of the problem by the community rather than persons who can help to alleviate serious crises.

In the second stage, crises and severe social problems are gradually or quickly recognized, yet the underlying belief in community strengths is not realized. Rather, community members and leaders may experience anger, fear, a sense of helplessness and numbness, shame or guilt through fear of exposure to the outside world, and potentially, community splitting and fragmentation.

The third stage is the realization that such social problems must and can be addressed. Behavior becomes help-seeking both internally and externally to take action for resolution of the problems. Numerous communities have acted to address violent behaviors. The most successful are those which have strong backing by community leadership and/or where leadership has emerged from the community to develop these efforts (May, 1987).

An important aspect of the team's operating philosophy is its stance on confidentiality. Projects with which the SIT is involved are confidential, unless the community itself wishes recognition for its efforts to combat violence. Hence, when communities are discussed in other team projects, they are not mentioned by name unless the community has sought to publicize its antiviolence activities.

SIT is committed to long-term efforts to address violence, realizing that prevention and intervention programs, along with efforts to change a value that accepts violence as normative behavior, need time to take effect. Hence, the team does not advocate a "hit and run" consultative approach, but rather one that evolves over time through the development of community programs and

activities. Not all projects require long-term efforts. Where they do, however, the team is regularly in touch with community leaders and local tribal and IHS personnel concerning the progress of antiviolence program efforts, and is available for regular site visits to assist program development and to assess additional program needs.

Method of Operation

SIT regularly receives different types of requests from American Indian community health providers, tribal leaders, and local IHS providers. These requests have been generated in a variety of ways. The team has publicized its services in a number of newsletters reaching American Indian communities throughout the United States. IHS Area Mental Health reviews, led by Headquarters Mental Health Program Branch personnel, help to alert local IHS and community personnel to the services provided by the team. The IHS Mental Health Branch Chiefs, one for each of the 12 IHS Areas, have been active in utilizing the team's services, and are always contacted when a request is received that involves a site visit in their respective Areas. Finally, the team has been invited to present on its activities and violence-related topics at a number of conferences involving American Indian leaders, community members, and community health providers.

When the team receives a request for community consultation, it determines whether the services requested can be addressed by the team and the immediacy of the need. A team member is assigned primary responsibility, with another member providing backup, and appropriate personnel are contacted to coordinate a site visit. Response time is determined primarily by the nature of the request and by other activities in which team members are presently engaged. A request for crisis intervention is addressed as quickly as possible.

A community analysis is conducted when the SIT is involved in long-term projects consisting of program planning, development, and evaluation of activities to address violent behaviors. This analysis is developed through first reviewing available documents on the history and cultural background of the community, socioeconomic status and geographic distribution of the American Indian population and local non-Indian communities, and any other materials which address community dynamics in relation to violent behaviors. Second, a set of questions is developed for the initial site visit to gain insights from local tribal leaders and community health providers on the current status of the community in relation to economic, social, and cultural issues, and how violent behavior problems are viewed and addressed. The team then develops a report that is given to the local tribal leaders and community health providers to be utilized as a basis for the creation of locally relevant intervention and prevention activities to address violence.

During the site visit(s), the request is discussed in detail with local leaders and health providers, and plans are made concerning the best methods of response. These planning efforts also assist in determining whether other issues need to be included. For example, a request may be made for assistance to develop a suicide prevention program or suicide register. In working with local community providers and leaders, the team helps to outline the various factors that need to be involved in such activities, including other social issues related to violence which may influence suicides and suicide gestures in that community. Further, the team encourages local leadership and personnel to outline the strengths in the community (e.g., family, culture, positive values) that may be utilized in program activities.

Although the team may be asked to address one type of violent behavior in relation to program planning, we encourage local providers and leaders to entertain the possibility that these problems occur in relation to other forms of violence or social issues, and that certain violent behaviors, which can vary from community to community, may cluster together over time and in families or cohort groups. Whenever possible, the team encourages a data collection effort to assist in documenting such behavior patterns. These data, in turn, can be used for further program development, evaluation of program effectiveness, community education, and seeking additional resources.

When planning intervention strategies and/or prevention programs, the SIT strongly encourages local leaders and health providers to implement the following activities: (a) assess community attitudes and values regarding violent behaviors; (b) assess community strengths that can be called upon to address violent behaviors; (c) encourage the use of volunteer help--resources in the form of natural community leaders including elders, religious leaders, and young people are often useful in creating awareness; (d) encourage community awareness through ongoing community education outreach; (e) look for and encourage strong leadership in the community; (f) educate program personnel, teachers, other providers, and the community at large as to the indicators that constitute high-risk behaviors; (h) empower and train law enforcement agencies and courts to effectively address violent behaviors; (i) create a multidisciplinary team approach with diverse personnel and community leadership to respond to community crises and develop community-wide education and prevention activities; (j) develop protocols for responding to crises that are realistic and well-supported by tribal leadership; and (k) encourage community leaders, health providers, and community members to persist, recognizing that activating and realizing positive social change requires time.

Special Initiatives Team Projects and Programs

Since June 1987, SIT has been involved in developing a number of projects and programs. Examples are described here to illustrate how the team has incorporated its philosophy and method of operation in the field. It is too early to tell the outcomes of the team's and respective communities' efforts to combat violence, but initial community response has been encouraging and hopeful.

Social Services Program for Child Abuse and Suicide Prevention

The first project involved a request from a rural West Coast American Indian community to determine the scope of the problem surrounding the need for a social services program to address suicide, child abuse, and other violent behaviors. The rural clinic had no social services, and clinic service providers were becoming more aware of the need for intervention in relation to violent behaviors. Team members met with clinic and tribal personnel, developed a community analysis report that outlined the needs of the community, and offered recommendations that local health providers might implement. One of those recommendations underlined the obvious need for a social services program. That program is now in place. Subsequently, the team arranged for the clinic director to make a visit to a Southwest clinic and hospital to obtain ideas as to the most optimal ways of developing the new program. Further site visits are planned by the team to assist in evaluating the program's effectiveness and to provide examples of protocols for the development of child protection teams and suicide prevention efforts.

Community Violence Elimination Program

The second project involved an initial request for assistance to develop methods to combat violent behaviors on a Northwest reservation. This project has become an ongoing effort. The reservation tribal council, IHS, and BIA administrative and health personnel have formed a coordinating committee with a threefold approach to eliminate violence on the reservation by the year 2000. The three approaches to violent behaviors include making the coordinating committee an integral part of the tribal program structure. After initiating community education efforts, a citizens' committee will be formed, comprised of community members and leaders, to continue to combat violence. Second, the coordinating committee has implemented a data collection project to gather information on violent events over a 1-year period to describe the pattern of violent behaviors on the reservation, to assist in increasing the effectiveness of programs to combat violence, and to develop proposals for acquiring further resources. A data collector has been hired and the tribe has purchased a computer to analyze the data. Third, the coordinating committee is developing ongoing community education efforts to alert the reservation community to the

impact of violent behaviors, high-risk indicators, and what community members can do to assist in the violence elimination activities. SIT has and will continue to conduct site visits as deemed appropriate by the coordinating committee and the tribal council to assist in this project.

Community Suicide Prevention Program

A third project has involved developing an in-depth community analysis of a Western reservation where assistance was requested for a suicide prevention program effort. Team members visited the reservation community and met with IHS personnel and tribal leaders to determine local strengths and barriers to the development of such a program. Recommendations were made by the team that are in the process of being implemented. This particular project has produced the basic format for assisting other communities, including isolated villages in Alaska, in the development of suicide prevention efforts, suicide registries, and protocol for response to community crises.

American Indian Mental Health Videotape

A fourth project has been initiated by the team along with the Mental Health Programs Branch to develop a training videotape on American Indian mental health. This is being done in conjunction with a Northern Plains tribe and its community college. The tribal health program was selected because of its exemplary cultural awareness efforts and its collaborative mental health, social services, and substance abuse approach to social problems. The videotape will include historical comments by tribal leaders and elders in relation to the health of American Indian people, demonstrations of clinical intervention modalities for violent and other behaviors in relation to cultural aspects, and excerpts from multidisciplinary team meetings to show an integrated team approach to mental health, social services, and substance abuse to address human problems. The video should be completed by late 1988. Although the videotape will show themes specific to this reservation, the underlying message hopefully will be useful to all American Indian populations. The video will be available nationally to assist community providers in the development of multidisciplinary teams specific to their respective communities and to help new health providers understand the necessity of being familiar with the cultural and historical background of the American Indian/Alaska Native people they serve.

National Resource Directory

SIT is also developing a National Resource Directory of foundations, consultants, materials, and programs which address mental health and social service issues related to violent behaviors that can be utilized specifically for American Indian communities. Included are materials developed by the team,

such as a protocol for the operation of child protection teams, information on suicide clusters, and variables that may be included in data collection formats regarding violent behaviors in American Indian communities.

Summary and Conclusions

The SIT of the Mental Health Programs Branch, IHS, was formed to assist American Indian/Alaska Native communities address issues of suicide and other violent behaviors. The key word is assist, in that the team is committed to the premise that the real strength and vision for positive social change is inherent in the local community itself. For such change to occur, albeit over time, the direct involvement of local community leaders and tribal health programs along with the support of local and Area IHS health providers are essential.

SIT is committed to long-term efforts at the community level aimed at addressing violence issues when such assistance is deemed appropriate by local leaders and health providers. In addition, confidentiality is maintained as to the specific communities with which the team is involved, unless permission is given by local authorities and/or the local community wishes to make known its antiviolence programs and activities.

Essential to team philosophy and operation is the encouragement of (a) community education, to develop a sense of community ownership and positive sense of responsibility to address issues surrounding violent behaviors, as well as emphasizing community and family strengths; (b) data collection/ development of protocols, to outline the scope of problems and methods to address those problems, to measure effectiveness of the program efforts against violence, and to develop additional resources; (c) resource development, both at the community level through community leadership and by networking with IHS and non-IHS entities to place communities and their programs in contact with potential consultants and funding sources; and (d) multidisciplinary teams, for both crisis intervention and prevention planning in addressing violent behaviors.

Where possible, local leaders and health providers are encouraged to share their successes and planning strategies with other American Indian and Alaska Native communities. These persons become consultants to other American Indian and Alaska Native communities who are attempting similar antiviolence efforts in their own communities. Sometimes the team facilitates this networking. Often it is unnecessary for the team to be involved at all.

In essence, the SIT, in its provision of outside consultation, can serve as a catalyst for American Indian and Alaska Native communities which have taken the first steps in recognizing the severe ongoing effects of violent behaviors, and are committed to addressing them actively and positively. Although effective change in relation to violent behaviors takes time, community-based and

community-controlled efforts can effect positive social change. SIT believes that American Indian/Alaska Native communities themselves can and will make this happen.

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Public Health Service Administration
Indian Health Service - Mental Health Programs
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From the National Association for Native American Children of Alcoholics

The National Association for Native American Children of Alcoholics held their first meeting in New Orleans, Louisiana to establish a non-profit organization. The National Center, in support of the Association's efforts, has invited JoAnn Kaufman, Chairman, to describe the initial goals and objectives of this association. We look forward to the future success and continuation of this type of supportive and informational organization--Journal Manager.

On March 1, 1988, over 70 Indian people from 30 different tribes who are concerned about the multigenerational effects of alcoholism and drug abuse on Indian families and communities, gathered to organize the National Association for Native American Children of Alcoholics (NANACOA). The Association's purpose is to provide information and support to Indian children of dysfunctional families. The Native Americans were participants in the 4th Annual National Convention on Children of Alcoholics which took place in New Orleans, Louisiana from February 28 to March 3, 1988. An interim Board of Directors was elected to plan and carry forward the mission of the new National Association. The following objectives were adopted: a) to establish NANACOA as a non-profit organization; b) to seek chapter status with the National Association for Children of Alcoholics; c) to plan a National Convention for Native American Children of Alcoholics in 1989; d) to establish a national network and newsletter to promote the exchange of information and resources; and e) to increase community awareness, understanding, and recognition of the needs of Native American Children of Alcoholics of all ages, especially among policymakers.

Members of the interim Board of Directors are:

Chairman: JoAnn Kaufman, Nez Perce, Seattle, Washington
Vice Chairman: Candace Fleming, Kickapoo/Oneida/Cherokee, Denver, Colorado
Treasurer: Pam James, Colville, Shelton, Washington
Sergeant-at-Arms: Ed Barnhart, Seattle, Washington

The interim Board and interested parties plan to continue defining the goals and objectives at a June, 1988, meeting to be hosted by the Flathead Tribal delegates in Western Montana.

JoAnn Kaufman, Chairman

Comments and/or inquiries can be directed to Ms. Kaufman at the Seattle Indian Health Board, P.O. Box 3364, Seattle, Washington 98104.