"Suicide (Echo) Clusters" – Are They Socially Determined, the Result of a Pre-existing Vulnerability in Indigenous Communities in the Northern Territory and How Can We Contain Cluster Suicides?

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Abstract

As the suicide phenomenon echoes across traditional Indigenous communities in Northern Territory, Australia, it has appeared in a unique way, within clusters of attempted and completed suicide. The pattern of suicide clustering far exceeds the normal distribution of suicide across a population. Examination of the effects of imitation within clusters of suicide in Indigenous communities largely supports a contagion effect operating, and validates my original hypothesis.

Suicide contagion and imitative suicide can result in suicide clusters and echo clusters, and are realised by the convergence of many factors and multiple determinants within traditional and non-traditional Indigenous communities. These factors and social determinants of suicide are explored to develop an understanding of the vulnerability of Indigenous people to suicide as a social contagion.

While temporal and spatial clustering have been established in previous research, current evidence suggests that there is a social and geographic polarisation of suicide among Indigenous people living in the most deprived areas of the Northern Territory. Evidence is emerging that the suicide gap has widened between Indigenous and non-Indigenous suicide rates over the past three decades from 1981 to 2010 in direct correlation to the widening social and economic gap between Indigenous and non-Indigenous people in the Northern Territory.

Suicide is more common in the Northern Territory than in the rest of Australia, particularly among Indigenous men who are mostly young, married, unemployed or on very low incomes, with negative social determinants making them vulnerable to suicide. These men cluster in a pre-existing group and the research suggests a link between Indigenous suicide and socio-economic disadvantage.

The Senate Community Affairs Committee Inquiry, The Hidden Toll: Suicide in Australia 2010 has highlighted Indigenous people as a priority risk group and suicide clusters as a potential risk within Indigenous communities. It requires suicide prevention, intervention, and postvention responses to contain suicide clusters and to meet the unique risks of Indigenous people. Yet the answer also appears to lie outside the interventionist model and within the social determinants approach to Indigenous suicide.

The "Circles of Vulnerability Model" outlines the risks and determinants for cluster suicides; and the "Indigenous Postvention Response, to Contain Suicide Clusters and Promote a Suicide Safe Community" is a model of response to intervene and prevent further suicides.

Suicide Clusters

Suicide clusters are a phenomenon which disproportionately affects Indigenous people in the Northern Territory ^{1, 2.} This research began

with the hypothesis that "suicide contagion, imitation and clusters have been enduring features of Indigenous suicide within urban, rural and remote Indigenous populations in the Northern Territory" since Indigenous suicide began to appear three decades ago and then rapidly escalated. After rigorous scrutiny of coroners' records, academic literature and grey literature to piece together the pattern of Indigenous suicide it became clear that there was evidence of suicide clustering, imitation and a contagion effect operating within those clusters. This research has identified that suicide clusters have been a consistent feature of Indigenous suicide and persistent over time, with clusters continuing to occur in urban, rural and remote Indigenous communities. Suicide clusters occur with exposure to another person's suicide death, assuming close temporal, geographic, interpersonal proximity and the reach of news of a suicide death, all of which precipitate imitative suicidal behaviour and further suicides. Concurrent with detecting clusters of suicide, the research conducted from 2006-2009 has identified several contagion operating, verified imitation, identified links to suicide from high levels of alcohol and substance abuse, and suggested a link between economic hardship and deprivation, and Indigenous suicide in the Northern Territory ^{1, 2, 3, 4}.

Previous research analysed data from the Northern Territory Coroner's Office and National Coroners Information System relating to 230 suicides which occurred from 1996–2007. McKenzie (2007), using the Knox test for Space-Time and Space-Time-Method to identify imitative rates of suicide found significant clustering among the 230 suicide deaths. Highly significant imitative suicide was confirmed, and the imitation rate rising (using space-time cluster analysis) to 12.5%, and (using space-time-method cluster analysis) to about 21% both with a time window of 360 days. The imitation rate was still rising to 27% at 540 days, indicative of the 'echo cluster' phenomenon^{2, 5}. This rate of imitation resulting in clustering far exceeds the normal distribution of suicide across a population. With clustering confirmed it identified that in particular communities some were either "hotspots" for suicide followed by recovery, or they were identified as experiencing suicide "echo clusters" where the community remained in the grip of suicide. Examination of the effects of imitation within clusters of suicide in Indigenous communities is largely supportive of a contagion effect operating and validates my original hypothesis^{2, 3, 4, 5, 6}.

The first recorded cluster of two suicides, with four serious suicide attempts between the two deaths all by the same method of hanging, occurred on the Tiwi Islands in the late 1980s. This pattern of a completed suicide followed by imitative suicidal behaviour resulting in a cluster of attempted suicides punctuated by completed suicides forming clusters, continued until the "Echo

Cluster" phenomenon was identified on the Tiwi Islands. Echo clusters are subsequent but distinct clusters of suicides occurring after the initial suicide cluster, with this phenomenon having resulted in forty-four (44) suicide deaths in two decades on this island community. It has also resulted in numerous serious suicide attempts, with most of the victims now having a lifetime risk for suicide⁶. Robinson (1990), who investigated mourning rituals of the Tiwi people in the late 1980s observed that because of the collective nature of the mourning ritual which comes to bear on a suicide death, he predicted that there was a real risk of further self-destruction⁷. Indigenous suicide began to cluster in some regions later than others, but with just as much intensity².

In the Northern Territory the five year aggregates for completed Indigenous suicide are: 1981-1985 there were seven suicides; 1986-1990 there were six suicides; 1991-1995 there were 15 suicides; from 1996-2000 there were 73 suicides; from 2001-2005 there were 123 suicides and from 2006-2010 there were 99 suicides; a total of 323 Indigenous suicides in three decades ^{6,7}. The 2001–2010 Northern Territory Indigenous suicide data is still reflecting high rates and indicative of the echo cluster effect. Pridmore & Fujiyama (2009) suggested the annual fluctuations in NT suicide data may be anomalies, whereas in this research the anomaly in 2002 can be accounted for by the dramatically high Indigenous suicide rate and intense echo clustering on the Tiwi Islands, Central Australia and other "hotspots" for suicide in the NT in that year. Furthermore, they suggest NT suicide rates were declining in 2006, and while the overall NT rate was low because of the very low rates of non-Indigenous suicide – a possible artefact - the Indigenous suicide rates in 2006 were high. The lower Indigenous suicide rate in 2008 suggests an indication that while contagion was still apparent it showed signs of being contained, possibly due to stricter alcohol restrictions and drug interdiction. With Indigenous suicide rates increasing again in 2010, it suggests that some strategies may be weakening in their effect or possible evidence of the interplay of other factors⁸. (See Table 1)

CONTAGION

Social Contagion

Primary concern following an Indigenous suicide is the potential for contagion which can lead to further suicides resulting in clusters. When high rates of suicidal behaviour, attempts and completed suicides occur within discrete Indigenous communities and defined geographical areas, it immediately raises the possibility of imitative suicide, a contagion operating, resulting in cluster suicides. This is mainly due to the dense social networks and complex interpersonal relationships within Indigenous families and communities^{1,2,6}. Christakis & Fowler (2009) offer the social contagion theory as an explanation, suggesting that positive and negative behaviours can be passed from friend to friend. They refer to the "three degrees of influence" and suggest "we are tied not just to those around us but to others in a web that stretches farther than we know". A cluster of friends appear to infect each other with certain behaviours because of their sheer proximity to each other. Their theory debunks the common explanations for problem or negative behaviours as the individual, family or community at fault, proving these explanations are inadequate⁹. Therefore, this research suggests several types of contagion operating at an individual, family and community level, for example, social, behavioural, familial and filial contagion, with other factors, determinants and vulnerabilities identified throughout the research period 1,2,9.

Table 1. NORTHERN TERRITORY INDIGENOUS SUICIDE RATES COMPARED TO NT TOTAL SUICIDE RATES AND AUSTRALIAN SUICIDE RATES PER 100,000 (2001 – 2010).



^{*}Australian 2009 and 2010 data not yet available

Familial Contagion

Familial contagion appears to be connected to dense family and social networks, the rapid reach of news of a suicide death, cultural responsibility and reciprocity, and the shame/blame factors associated with the death. Early examples of familial suicide contagion were recorded in East Arnhem and the Tiwi Islands in the 1980s, with family-linked suicides occurring. The same families were affected by suicide which continued in the 1990s and the first decade of the 21st Century. Similar familial contagion has occurred in Central Australia which seems to have experienced the worst effects of the phenomenon. Suicide contagion appears to have become intergenerational, affecting the families for two or three generations. Suicide contagion is a process whereby exposure to suicidal behaviour influences other members of the family, group or community either directly or indirectly to attempt or complete suicide ^{1,2,3}.

Filial Contagion

Several accounts of filial suicide contagion are documented throughout the Northern Territory Coroners' police narratives reviewed from 1991-2007. Police narratives of suicide deaths provide evidence of a filial contagion relationship with sibling suicides, dyads of 'father and son', and 'uncle and nephew' Indigenous suicides occurring in urban and remote settings¹⁰. In some suicide narratives analysed, the proof of contagion is convincing with a statement from a young suicide victim to his friend just prior to his own suicide, saying "I want to be with my brother", who completed suicide two years earlier. Another example recorded is where a brother completed suicide five years after his sister, near where they lived in an urban setting. In some other cases filial contagion appears as a distal factor, in the case of a 12-year-old who completed suicide on his birthday after being teased by siblings. He lived with his family in a very remote outstation and had been otherwise well and working with his father the day of his death. He lived near a community where there had been hanging attempts by children, and several adults who had completed suicide by hanging, who were related to him and who he had visited from time to time ^{1, 2, 4, 10}.

Behavioural Contagion

There are several types of behavioural contagion identified, that is, the choice of method, choice of location of suicide, involvement of alcohol and other substances, drinking circles, overwhelming and malignant grief, and the age of the cohort involved in suicidal behaviour. Other factors which produce vulnerability, such as blame, shame, vicarious trauma, horizontal violence, bullying are dealt with below.

Hanging method as a behavioural contagion has emerged as the most enduring feature in Indigenous suicide with 86% of suicides by hanging in the period 1996–2006 and 90% of suicides from 2006–

2010. Hanging method was used in 100% of suicides in children aged 10–14 years from 1996–2010. All childhood external cause of death by hanging is either suicide or accidental death, but all appear to be evidence of inter-generational behavioural contagion^{3,4}.

While suicide in relation to gender initially showed a strong behavioural contagion favouring males, with 91% of Indigenous suicides during 2000–2005 being male, but recent analysis of data from 2006–2010 shows an increase in Indigenous female suicide, resulting in 82% male and 18% female with half of these female suicides aged 14 to 17 years. Also, while Indigenous females don't attempt suicide nearly as frequently as non-Indigenous females, when they do attempt, they use the lethal method of hanging, resulting in death^{1,2,3,4,6}.

The link between alcohol and hanging is also shown to be evidence of powerful contagion within drinking circles in Indigenous communities, with 77% of hanging suicides in the context of alcohol intoxication. Suicide in relation to marital status analysis showed 52% were married or in de facto relationships, and approximately 40% never married; and in relation to employment, 72% of Indigenous suicide victims were unemployed. Therefore being an Indigenous young adult male, married and unemployed appears to increase the risk of suicide. It is possible to conclude that Indigenous "married" men are at risk of suicide through their lack of employment ^{1,3,4}.

Substance Use as a Contagion

Alcohol and other substance abuse have been found to play a definitive role in co-morbid mental, physical and behavioural disorders implicated in completed suicide in the NT. Hanssens (2007) identified that, in all age groups, alcohol has been identified as playing a definitive role in suicidal behaviour, particularly in adult Indigenous men, and contributing to mental and behavioural disorders. Measey et al (2006) identified that psychiatric disorders contributed to suicide, and Pink & Allbon (2008) reported that Indigenous men were admitted to hospital with mental disorders due to psychoactive substance abuse 4.5 times more than the expected rate for their proportion in the Australian population ^{11,12}. Hanssens (2007) analysed ABS CURF "external cause of death data" for Indigenous persons from 2001-2005 and found mental and behavioural disorders due to the use of alcohol, a 65% prevalence for older adults and 45% prevalence for younger adults. Hanssens (2007) also found mental and behavioural disorders due to the use of cannabis, a 20% prevalence for older adults and 30% prevalence for younger adults. In the younger age groups the link between cannabis and hanging is strong, particularly as it contributes to impulsivity when intoxicated, in states of withdrawal, or when drug seeking, with 25% of hangings in the context of cannabis intoxication. This result could still be an underestimation due to lack of forensic testing or under-reporting of toxicology results to the National Coroners Information System (NCIS) 1,2,3,4.

Clough and colleagues (2009) recently reported that cannabis use among youth and young adults aged 13–36 years in the NT is escalating with approximately 62–76% using cannabis in Arnhem Land communities¹³. He states there is a perception by the communities that there is a clear link between suicide and cannabis use. This is also corroborated by other researchers. An examination of the toxicology results from "near hangings" which were admitted to the Emergency Department in the NT from 1996– 2001 found that 50% had a positive toxicology result or a history of cannabis use¹⁴. Pink & Allbon (2008) examined "external cause of death data" 2001–2005 and found that 16% of all Indigenous deaths in Australia due to "external causes" were mostly due to injury, compared with 6% of deaths of non-Indigenous people¹².

Descriptions of cannabis use are suggestive of behavioural

contagion in the use of bucket bongs by groups of youth in Indigenous communities. There is also evidence of drug substitution from alcohol to cannabis use in some communities that are now alcohol-restricted. Massive amounts of cannabis are finding their way into Indigenous communities with resultant persistent suicide clustering. Clusters of suicide are persisting in communities which are alcohol-restricted, evidence suggesting that suicide attempts and completions are in the context of increasingly heavy cannabis use^{15,16,17}. For example, just in the Top End alone, Elcho Island has had a recent suicide cluster in 2009, and Yirrkala/Marngarr with three separate suicide clusters between 2006 and 2009. There also current examples of communities still experiencing persistent suicide attempts. It impacts on families, police and clinic staff and can manifest as 'burn out', vicarious trauma and a personal suicide risk to family and staff. They are living in a constant state of suicide watch/alert for members of their family and community^{2,4}.

Age Contributing to Contagion

Suicide contagion also occurs in certain age cohorts, with 82% of suicide occurring in the 15 to 35 year olds, making this age group four times as likely to complete suicide. The 'age cohort' as a feature of contagion is rarely considered but needs to be explored further. Interestingly, Indigenous suicides over the age of 55 years were extremely rare. When Indigenous suicide is compared with the same non-Indigenous cohort from ages 10–55 years, the gap in relation to life expectancy has widened consistently throughout the past decade and the gap continues to persist. Indigenous people die almost two decades younger than non-Indigenous people from chronic disease and poverty. The elders who survive are steeped in their tradition, spiritual and cultural beliefs, and appear emotionally stronger and less vulnerable than their offspring ^{3,4}.

Place of Incident Contributing to Contagion

Attempted and completed suicides often occur at a particular location or place. For example, using the same tree to hang themselves from (until the tree is cut down) or attempting at the same power pole or water tower. From previous research, NT Indigenous suicide data was analysed and identified that the place where the suicide occurred was overwhelmingly found to be the home with 65% of Indigenous suicides occurring in or around the home. Other places include the beach, river bed, bush camps close to the deceased's community with 22%, and other urban places 13%. The home being the 'place of incident' where most suicides are completed supports a contagion hypothesis but could also provide a key to prevention. Overcrowded, poor, noisy households are often a determinant of suicide where many of the residents are already overburdened with the responsibilities of providing for an extended family household. Many suicide narratives tell the story of a victim completing suicide while families are busy, or not home, or sleeping in another part of the house. A family member related the story of a suicide watch on a loved one for several days only to be distracted momentarily by the demands of attending to a big extended family and losing the loved one to suicide. The suicidal behaviour of a member of the household is quickly communicated to other family members and postvention support for these families is vital, in the aftermath of the devastation and tragedy⁴.

Malignant Grief as a Contagion

Milroy (2009) suggests a "malignant grief" phenomenon operating within some Indigenous individuals, families and communities which is an outcome of persistent stress, and irreconcilable grief and loss. There is a strong link between loss and suicide, and the two are intrinsically connected. A recent loss can often be what precipitates an avalanche of distress and deep existential hopelessness, prior to the moment of complete despair. Milroy (2009) states that the magnitude of grief experienced by Indigenous communities, families and individuals is under-recognised, poorly understood and probably overlooked in relation to people being unwell. Furthermore, she states that grief has invasive properties, spreading throughout the body and many Indigenous people die of this grief ¹⁸.

Socio-economic Determinants of Suicide

Evidence is emerging that the suicide gap is widening between Indigenous and non-Indigenous suicide rates over the past three decades from 1989 to 2009 in direct correlation to the widening social and economic gap between Indigenous and non-Indigenous people. The gap has been most apparent between the most and least deprived areas of the Northern Territory. Recent research conducted by Exeter & Boyle (2007) in Scotland showed that suicide does cluster in economically deprived communities whether they are urban, rural or remote¹⁹. Factors which are known to influence suicide, such as drug misuse, divorce and family breakdown, depression and unemployment are likely to be more common in such deprived areas. Economic disadvantage is part of the explanation for the persistent and consistent geographical concentration of suicide, particularly suicide clusters, and appears to be socially and racially determined in the Northern Territory²⁰.

Recent research in Australia by Page et al (2009) estimated population attributable risk (PAR) of mental disorders compared to indicators of socio-economic status (SES) for attempted suicide. It found that for mental disorders the highest PAR for attempted suicide was anxiety disorders, compared to SES with the highest PAR for attempted suicide being occupation and education level ²¹. Much earlier research by Whitely & Gunnell et al (1999) had suggested a concept referred to as "social fragmentation" and areas which are socially fragmented have the highest rates of suicide, independent of levels of income and other measures of deprivation²².

The SEIFA Index of Relative Socio-Economic Disadvantage is derived from attributes such as low income, low educational attainment, high unemployment, jobs in relatively unskilled occupations and variables that reflect disadvantage rather than measure specific aspects of disadvantage. In 2006 in all states and territories a greater proportion of the Indigenous population were in the most disadvantaged quintile than the non-Indigenous population²³. The NT had the highest proportion with 58% of the Indigenous population in the most disadvantaged and lowest quintile. Indigenous people are spread across urban, rural and remote areas but regardless of whether they live in high or low socioeconomic areas the majority still suffer high levels of social and economic disadvantage. According to Kennedy and Firman (2004), because some Indigenous people live on the margins of high socio-economically advantaged areas, their disadvantage can be masked^{23,24}.

Recent research by Zhao & Guthridge (2009) investigated the major risk factors for Burden of Disease (BOD) in the Northern Territory, and identified low socio-economic status to be the most important risk. Low Socio-Economic Status was associated with a higher BOD, and noted to be the highest risk at 26.8%. It was considered the main risk factor contributing to chronic conditions/ injuries, including suicide, ahead of all other factors including alcohol at 4.5% and substance use at 2%. When comparing the top ten categories of BOD in 1994–1998 and 1999–2003 with the number of DALY's used to rank disease and injury categories, the suicide & self-inflicted conditions rank increased from 19th in 1994–1998 to seventh in 1999–2003. While fatal outcomes contributed to the minority (43%) of total burden of disease and

injury, suicides' contribution by major disease category in the NT 1999–2003 was 84% fatal outcomes and 16% non-fatal outcomes, ahead of all other categories including cancer and cardiovascular conditions. Mental health conditions were the leading category of Burden of Disease for both NT males and females ^{24, 25}.

Around a third (30%) of all NT residents are Indigenous people and 15% of these live in the major urban centre of Darwin. The remaining 85% of these Indigenous people who live outside of Darwin, are less educated, less likely to be employed or participating in the workforce, are more likely to be in lower skilled occupations, more likely to be earning very little, and far more likely to be living in overcrowded dwellings²⁶. Dillon and Westbury (2007) suggest that even when Indigenous people live in urban centres they are over represented in the poorest suburbs, but they can also be a hidden population within middle income earning suburbs²⁷. Hanssens (2007) suggested there is a complex and entrenched relationship between health, housing, education, and employment in remote areas of the NT, which impact on the social determinants of suicide¹. Recent research by Taylor & Macdonald (2008) found that most of the low income earners live in rural and remote areas in the NT, earning less than \$250.00 per week, with 37% living in Darwin and 63% living in rural and remote areas²⁶. Young Indigenous adults in the poorest areas of the NT aged 15 to 35 years are almost four times more likely to complete suicide than those in its least deprived areas and this can be explained by the high levels of deprivation in these areas^{2,6}. Therefore, lifting the socio-economic status of Indigenous people appears to be a sound upstream component of a social determinants approach to suicide prevention at the population level.

Circles of Vulnerability

The "Circles of Vulnerability and Social Determinants of Indigenous Suicide, contributing to contagion, imitation and cluster suicides" model has been developed to identify vulnerabilities which put people, families and communities at risk of suicide ²⁸. The first four circles of vulnerability for the person, family and community at risk after suicide are close 'temporal proximity' having been with the victim recently, close 'geographic and physical proximity' to the suicide victim; 'interpersonal and familial proximity' to the suicide victim, and the 'reach of news of suicide or sudden death' is fast and widespread having heard of the death soon after the event. Further circles of vulnerability include cultural, spiritual, psycho-social-emotional vulnerability and depression. The remaining vulnerabilities include interpersonal and family conflict, violence, sexual abuse, cultural responsibility to deceased and associated blame, and payback, overwhelming shame, alienation, and anguish. Yet others include a history of substance abuse, member of a drinking circle, alcohol and cannabis availability, racism, unemployment, poor education, inaccessible mental health care, poverty, economic deprivation, social fragmentation, availability and commonality of means, social and behavioural contagion including heightened emotions, particularly anger, with overwhelming blame, shame, persistent stress, irreconcilable loss, malignant grief and existential hopelessness. They also include being Indigenous, young, male and married, unemployed, along with the negative social determinants of suicide which include poor access to mental health services, inadequate educational attainment resulting in poor mental health literacy, endemic unemployment among peers, inadequate food security, income inequality and inadequate transport $^{\rm 20,\,21,\,22}.$

The individual, family, community and whole population are at risk because of the exposure to the suicide death either directly, indirectly or vicariously and require postvention support and intervention²⁹. As an Individual or as a collective they may have one or more pre-existing vulnerabilities which may influence

Promote Life Model 1: CIRCLES OF VULNERABILITY AND SOCIAL DETERMINANTS OF INDIGENOUS SUICIDE CONTRIBUTING TO IMITATION, CONTAGION & CLUSTER SUICIDES



the psychological and emotional impact of the suicide death, or they may have a social or cultural responsibility for the suicide victim^{2,3,4,6,30}. (See Promote Life Model 1)

Goals of a Postvention Response to Contain Suicides

Indigenous suicide may be seen as an inability to cope with severe psychological stress, and the rising rates as an indication of an increasing number of people experiencing such stress. Suicide clustering is an indication of inadequate postvention responses, an inability to contain suicide contagion and imitation, resulting in cluster of suicides⁶. Families, agencies and communities faced with suicide clusters often feel unprepared to respond or deal with the phenomenon. My proposed model provides a "Postvention Response, to Contain Suicide Clusters and Promote a Suicide Safe Community". The model also considers the social determinants of Indigenous suicide, in that suicide clusters do not occur in a vacuum but within a dynamic and complex social context. It uses a population approach to the "individual, family and community at risk" in the context of "social contagion" and with "pre-existing vulnerabilities", where the whole community is invited to be involved in a community response. It involves setting up a Crisis Intervention Committee meeting to discuss, plan, coordinate and provide a safety net within the community ^{28, 29}. It is directed strategically by the Inter-Agency Suicide Response Task Group in each jurisdiction, under the auspices of the Director of the Coronial Unit and the Mental Health Services which provides vital information about the suicide to the Crisis Intervention Committee members. It also involves a facilitated process to address risk factors, identify contagion and vulnerabilities, and consider the long term responses to the social determinants of suicide within families and communities. The Crisis Intervention Committee can quickly respond to the emergency and resolve the issues around cultural responsibility, reciprocity, safety and security. It can identify ways to address shame, blame, and support the containment of conflict, anger, vicarious trauma, horizontal violence and heightened emotional outpouring of grief³⁰. (See Promote Life Model 2)

Postvention responses need to be timely, efficient and targeted to prevent contagion, imitative suicide and contain cluster suicides. They require the utilisation of local networks, when available, and expert intervention. The response should include the following: confirm the facts, mobilise a crisis response team, identify at-risk people, support members of the family and community; prevent imitative suicides by identifying others in family/ group/community members who are at risk; connect those at risk to a support person within the family/community until expert help arrives to provide intervention services; reduce the friends and family identification with the deceased by talking about what happened to prevent imitation and contagion; provide longterm surveillance and support; reduce or restrict alcohol availability; restrict cannabis use; support community expression of grief either before, during or after funeral in a way that can be expressed safely 30.

Indigenous culture and connectedness provides a potential safety-net after a sudden death, but lies dormant while a large proportion of the community is

experiencing catastrophic and malignant grief or under the influence of alcohol, cannabis and other drugs, or under the influence of the intoxicated person. Increasing the communities' capacity to identify precursors to suicide, suicidal behaviour, and provide timely responses is still at the core of prevention initiatives. The cultural safety net which is still active in many communities needs to be activated, with the support of the "Inter-Agency Suicide Response Task Group" "Crisis Intervention Committee" and the "Indigenous Postvention Response, to Contain Suicides and Promote a Suicide Safe Community" model. The community should activate alcohol restrictions and drug interdiction immediately after a completed suicide, during the funeral ceremonies with a "suicide watch" and a "buddy system" activated for 'at risk' members of the community. The "buddy system" is activiated and prevents the potentially suicidal person from acting on suicidal thoughts, or disables plans to complete suicide because they are never left alone. Suicide bereavement is often disabling for individuals, families and communities, and can result in an emotional paralysis which is difficult to overcome. This acute response to grief can reoccur at any time with little or no warning, and with unpredictable triggers³⁰.

A word of caution, telling the story of suicide without ensuring adequate safety nets and suicide response plans in communities, is fraught with danger. Point clusters from news media stories are well-known phenomena, but while news spreads differently in Indigenous communities, the news of a completed suicide spreads rapidly, similar to a bushfire with just as catastrophic results in a tight knit Indigenous community. Therefore, any education about suicide needs to be set in the context of an established suicide safety network, crisis intervention committee or suicide-safe/ promote-life community forum^{6, 30}. (See Promote Life Model 2)

Furthermore, any suicide prevention, intervention and postvention response, information or training should be in the context of the knowledge of past and present suicidal activity within that community. Suicide prevention, intervention and post vention responses can only be conducted successfully to contain further suicides and cluster suicides if there are collaborative links between agencies and services. The agencies and service providers, for example, the

Promote Life Model 2: INDIGENOUS POSTVENTION RESPONSE AND SUICIDE SAFE COMMUNITY

CRISIS INTERVENTION COMMITTEE – SOCIAL & EMOTIONAL WELLBEING COORDINATOR – HEALTH PROMOTION, SOCIAL & STRUCTURAL DETERMINANTS –	PRIMARY (WHOLE OF COMMUNITY / POPULATION APPROACH) UPSTREAM	secondary (MONITOR AT RISK VULNERABLE GROUPS) MIDSTREAM	tertiary (High Risk Vulnerable Individuals identified) DOWNSTREAM
LIRE PROMOTION & SUICIDE PREVENTION (POPULATION APPROACH: BROAD COMMUNITY CAPACITY BUILDING; NETWORK DEVELOPMENT; EDUCATION; PROMOTE HELP SEEKING; ADVOCACY) "SUICIDE PREVENTION AUSTRALIA ABORIGINAL CAPACITY BUILDING CONFRENCE" 2007 "WORLD YOUTH DAY" AUSTRALIA "LIFEFORCE NETWORKS – WESLEY MISSION"	DEVELOP PARTNERSHIPS WITH COMMUNITY SUPPORT COMMUNITY ACTION ON SOCIAL DETERMINANTS OF SUICIDE AND SELF HARM EDUCATION FOR BROADER COMMUNITY: NIGHT PATROL, SHIRE COUNCIL YOUTH GROUPS, SCHOOLS, CLINICS, PRISONS, PROBATION & PAROLE, COMMUNITY GROUPS & CHURCH GROUPS.	IDENTIFY GROUPS AT RISK & FAMILYWORKERS REMAIN ON SUICIDE RISK ALERT: ABORIGINAL (MENTAL) HEALTH WORKERS, ABORIGINAL COMMUNITY POLICE OFFICERS, YOUTH WORKERS, TEACHERS, NURSES, and DOCTORS. FAMILY, FRIENDS, WORK COLLEAGUES, CLUB MEMBERS, CHURCH MEMBERS.	CLEAR PROTOCOLS FOR RISK ASSESSMENT & ADMISSION: FOR EMERGENCY DEPARTMENT STAFF, AMBULANCE OFFICERS, POLICE OFFICERS, CLINICAL PSYCHIATRIC NURSES, DOCTORS & ALLIED HEALTH STAFF. COMMUNITY BASED HEALTH CENTRES. GENERAL PRACTICE SURGERIES. MENTAL HEALTH SERVICES.
INTERVENTION (SKILLS TRAINING UNDERTAKEN FOR COMMUNITY MEMBERS AND PROFESSIONAL GATEKEEPERS) ASIST & MENTAL HEALTH FIRST AID "SALVATION ARMY HOPE FOR LIFE SUICIDE INTERVENTION TRAINING" 2008. "OZHELP - BUILDING INDUSTRY SUICIDE PREVENTION TRAINING" "LIFEFORCE SUICIDE PREVENTION TRAINING"	SUICIDE AWARE TRAINED: COMMUNITY MEMBERS, GROUPS, AGENCIES, ORGANISATIONS, VOLUNTARY GROUPS AND CHURCH GROUPS. SHCOOLS, DEFENCE FORCES PERSONEL, PUBLIC SERVANTS, BUILDING INDUSTRY. INDIGENOUS COMMUNITIES. SHIRE COUNCIL WORKERS.	APPLIED SUICIDE INTERVENTIONS SKILLS TRAINING (ASIST) ABORGINAL (MENTAL) HEALTH WORKERS, ABORIGINAL COMMUNITY POLICE OFFICERS, YOUTH WORKERS, TEACHERS, ASIST / MENTAL HEALTH FIRST AID TRAINED STAFF IN EACH AGENCY OR ORGANISATION, MENTAL HEAL FIRST AID TRAINED STAFF, SALVATION ARMY TRAINED STAFF, LIFEFORCE AND OZHELP TRAINED PERSONELL.	CLINICAL SUICIDE RISK ASSESSMENT SKILLS: EMERGENCY DEPARTMENT STAFF, CLINICAL PSYCHIATRIC NURSES, AMBULANCE, POLICE, GENERAL PRACTITIONERS, PSYCHIATRIST, PSYCHOLOGIST, MENTAL HEALTH SERVICES
POSTVENTION (SUPPORT FOR BEREAVED WITH SORRY CAMPS, HEALING CIRCLES, SUPPORT GROUPS OR OTHER BEREAVEMENT SERVICES) – "SALVATION ARMY BEREAVEMENT SUPPORT – LIVING HOPE" 2008. "ARBOR – BEREAVEMENT SUPPORT PACKS" 2009. "BALUNU FOUNDATION – SPIRITUAL HEALING PROGRAM" 2009.	GENERAL BEREAVEMENT INFORMATION, SUPPORT, TRAINING IN LISTENING SKILLS FOR COMMUNITY SUPPORTERS AND CRISIS INTERVENTION COMMITTEE MEMBERS. SALVATION ARMY BEREAVEMENT TRAINING. LIFEFORCE MEMORIAL SERVICES SUICIDE PREVENTION AUSTRALIA BEREAVEMENT SERVICE	ACTIVE SUPPORT FOR THE BEREAVED FROM ABORIGINAL MENTAL HEALTH WORKERS AND ABORIGINAL COMMUNITY POLICE OFFICERS - GIVE ASSISTANCE AND REFERRAL IF NECESSARY. SALVATION ARMY FRONTLINE BEREAVEMENT SUPPORT WORKERS. LIFEFORCE NETWORKS.	REFERRAL PATHWAY TO AGENCIES FOR BEREAVED FAMILIES WITH COMPLICATED GRIEF; SUICIDE WATCH AND RISK ASSESMENT IF NECESSARY FOR THOSE 'AT RISK' OF SELF-HARM. DIVISIONS OF GENERAL PRACTICE. MENTAL HEALTH SERVICES.

Police, Coroner's Office, and Mental Health Services provide the conduit for information in a responsible and confidential format to Remote Health Centres and visiting services, General Practitioners, Schools, Shire Council Offices, other institutions, the family and communities within which suicides occur. These organisations require emergency/critical incident response plans for all critical incidents comprehensively prepared, so that they can respond to an attempted or completed suicide in their community³⁰.

The recent Senate Affairs Committee Inquiry into Suicide – The Hidden Toll: Suicide in Australia (2010) has highlighted Indigenous people as a priority risk group who require suicide prevention, intervention, and postvention responses that meet the unique risks of Indigenous people to contain suicide clusters³¹. Yet the answer also appears to lie outside the interventionist model and within the social determinants approach to Indigenous suicide³². Indigenous suicide is strongly connected with socio-economic deprivation, the social determinants of Indigenous health and wellbeing and geographic remoteness in the Northern Territory³³.

A response to suicide clusters requires broader policies, consistent strategies, intersectoral collaboration and social changes to address the root causes of economic stress, hardship, vulnerability, family and community dysfunction and disintegration, but which are culturally and spiritually sensitive and appropriate to Indigenous people ^{1,3,4,34}. The social determinants of suicide need to be addressed at a fundamental level to provide hope to the next generation and to contain the current suicide contagion and clusters³⁵. With one Northern Territory Indigenous elder's plea "We don't want any more (young men) takin' their life away! When's it gonna stop?"³⁶.

Suicide Information

Telephone: (02) 9568 3111 Website: http://suicidepreventionaust.org

References

- Hanssens L. The Search to Identify Contagion Operating within Suicide Clusters in Indigenous Communities, Northern Territory, Australia. *Aboriginal & Islander Health Worker Journal* September/October 2007(a); 31 (5) 27–33.
- Hanssens L. Imitation and Contagion Contributing to Suicide Clustering in Indigenous Communities: Time-Space-Method Cluster Analysis. *Aboriginal* & Islander Health Worker Journal. May/June 2008 (b), 32 (3) 28–35.

- Hanssens L & Hanssens P. Research into the Clustering Effect of Suicide within Indigenous communities, Northern Territory, Australia. *Aboriginal* & Islander Health Worker Journal May/June 2007; 31(3) 3–11.
- 4. Hanssens L. Indigenous Dreaming: how suicide in the context of substance abuse has impacted on and shattered the dreams and reality of Indigenous communities in Northern Territory, Australia. *Aboriginal & Islander Health Worker Journal.* November/December 2007(b); 31 (6) 5–12.
- McKenzie N, Keane M. Contribution of Imitative suicide to the suicide rate in prisons. Suicide & Life Threatening Behaviours. 2007; 37 (5) 538-42.
- Hanssens L. "Echo Clusters" Are they a Unique Phenomenon of Indigenous Attempted and Completed Suicide? *Aboriginal & Islander Health Worker Journal*. January/February 2010. 34. (1) 3–12.
- 7. Robinson G. Mourning rites and rituals. Oceania. 1990.
- Pridmore S. & Fujiyama H. Suicide in the Northern Territory, 2001– 2006. The Royal Australian and New Zealand College of Psychiatrists. 2009; 43:1126-1130.
- Christakis NA & Fowler JH. Social Contagion, in Connected: The surprising power of our social networks and how they shape our lives. Little, Brown & Co. Pub. 2009.
- Carson H J. Dyads of Father and Son Suicide Separated by Time and Circumstances. American Journal of Forensic Medicine & Pathology: 2010. 31. (1) 80–82.
- Measey ML, Li SQ, Parker R, & Wang Z. Suicide in the Northern Territory, 1981-1992. Medical Journal of Australia. 2006; 185 (6):315–9.
- 12. Pink B & Allbon P. The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples. Australian Bureau of Statistics, Australian Institute of Health and Welfare. 2008; 4704.0 Canberra.
- Clough AR, d'Abbs P, Cairney S, Gray D, Maruff P, Parker R & O'Reilly B. Adverse mental health effects of cannabis use in two Indigenous communities in Arnhem Land, Northern Territory (Australia): an exploratory study. *Australian and New Zealand Journal of Psychiatry* 2005; 39(7):612-620.
- 14. Davidson JA. Presentation of Near-Hangings to an Emergency Department in the Northern Territory. *Emergency Medicine*. 2003: 15 (1) 28-31.
- 15. Clough AR, Lee KSK, Cairney S. Changes in cannabis use and its consequences over three years in a remote Indigenous population in Northern Australian. *Addiction* 2006; 101: 696–705.
- Lee KSK, Clough AR, Jaragba MJ, Conigrave KM, & Patton G. Heavy Cannabis use and depressive symptoms in three Aboriginal communities in Arnhem Land, Northern Territory. *Medical Journal of Australia*. 2008; 188: 605–608.
- Lee KSK, Conigrave KM, Patton G & Clough AR. Cannabis use in remote Indigenous communities in Australia: endemic yet neglected. *Medical Journal of Australia* 190(5) 2 Mar 2009: 228–229.
- 18. Milroy H. (2009) Personal Communication. Malignant Grief Phenomenon.
- Exeter DJ & Boyle PJ. Does young adult suicide cluster geographically in Scotland? *Journal of Epidemiology Community Health* 2007: 61:731–736.

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on health are devastating and long-reaching. The high rates of depression, hopelessness leading to suicide and seeking surcease of living conditions by escaping with alcohol and other drugs, are almost inherent in living as an Indigenous person. The layering of grief and loss from first contact, via the controlling policies and practices such as forced relocation, removal of children, destruction and loss of land and habitat, outlawing religion and cultural practices are not conducive to happiness, and neither are they overcome in a generation.

Australia, Canada and New Zealand are signatory countries to the World Health Organisation (WHO). As such, the WHO has mandated their involvement in the Social Determinants of Health Commission's Closing the Gap Within a Generation program²⁵. Australia has dedicated professional people, with social justice as a core value, committed to redeeming Aboriginal communities. Canada and New Zealand have made significant increases in decreasing health disparities and inequalities. As Frost²⁷ said, "I have promises to keep, and miles to go before I sleep". So too do we as a nation – it is imperative the Closing the Gap initiatives are maintained for more than this generation. With this model of addressing the root causes of social determinants of health, reducing social exclusion – that great threat to wellbeing – Australian Aboriginal peoples will continue to demonstrate resilience and strength until once again, the world becomes soft.

References

- 1. World Health Organisation, (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health,* Social Determinants of Health Commission, WHO, Geneva.
- 2. Keeley, L. (1996). *War before civilization: The myth of the peaceful savage*, London: Oxford University Press.
- Ward, A. (1974). A show of justice, Auckland: Auckland/Oxford University Press.
- 4. Avurch, K. (1998). *Culture and conflict resolution*, United States Institute of Peace, Washington, D.C.
- 5. Brading, A. (1991). The first America, Melbourne: Cambridge University Press.
- Anderson, M., Smylie, J., Anderson, I., Sinclair, R., & Crengle, S. (2006). First Nations, Inuit and Metis Health Indicators in Canada. VicHealth Koori Health Unit, Disc Paper No. 18
- 7. Parlee, B., & Marlowe, E. (2001). *Community-Based Monitoring Final Report*, Lutsel K'e Dene First Nation, Yellowknife.
- 8. Himmelfarb, G. (1999). *One Nation, Two Cultures*, Massachusetts: Knopf Publishing Group.
- 9. Cipollini, M. (2007). The Old Wor(I)d and the New Wor(I)ds: a discursive

(Continued from page 19)

- 20. Paradies Y. Racism. In B Carson, T Dunbar, R Chenhall, R Bailie (Eds) Social Determinants of Indigenous Health. 2007 Sydney, Australia: Allen & Unwin.
- Page A, Taylor R, Hall W & Carter G. Mental disorders and socioeconomic status: impact on population risk of attempted suicide in Australia. *Suicide & Life Threatening Behaviour.* 2009; 39 (5): 471–481.
- Whitely E, Gunnell D, Dorling D, & Davey Smith G. Ecological study of social fragmentation, poverty, and suicide. *British Medical Journal*. 1999 October 16; 319(7216): 1034–1037.
- 23. Kennedy B & Firman D. Indigenous SEIFA revealing the ecological fallacy. Paper presented at the 12th Biennial Conference of the Australian Population Association, Canberra. September. 2004.
- Baker J & Adhikari P. Research paper: Socio-economic indexes for individuals and families. ABS Cat. No. 1352.0.55.86. 2007.
- Zhao Y, You J & Guthridge S. Burden of Disease and injury in the Northern Territory, 1999-2003. Department of Health and Families, Darwin, 2009.
- Taylor A & Macdonald S. Indigenous Darwin and the Rest of the Northern Territory. Population studies group research brief issue 2009026. Charles Darwin University.
- 27. Dillon MC & Westbury ND. Beyond Humbug: Transforming Government Engagement with Indigenous Australians. South Australia. Seaview Press. 2007.
- 28. Zenere FJ. Suicide Clusters and Contagion: Recognising and

survey from discovery to early anthropology, in L. Wolff & M. Cipolloni, (Eds.)(2007) *The Anthropology of the Enlightenment*, California: Stanford University Press.

- 10. Holman, J. (2008). The Enlightenment and Captain James Cook: The Lono-Cook-Kirk-Regenesis, London: Authorhouse.
- 11. Trudgeon, R. (2000). Why warriors lie down & die: towards an understanding of why the Aboriginal people of Arnhem Land face the greatest crisis in health and education since European contact: djambatj mala, Darwin: Aboriginal Resource & Development Services Inc.
- 12. Funnell, R., Koutoukidis, G. & Lawrence, K. (2008). *Tabbner's nursing care: theory and practice*, Melbourne: Elsevier.
- 13. Orange, C. (2004). An Illustrated History of the treaty of Waitangi, Wellington: Bridget Wellington Books.
- 14. Australian War Memorial Newsletter, (2009) retrieved 9.10.09 from http://www.awm.gov.au/atwar/thismonth/mar.asp
- 15. Duff, A. (1990). Once were warriors, New Zealand: Tandem Press.
- StatsCan, Statistics Canada, (2006). 2006 Census: Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census: Findings www.statcan.gc.ca
- 17. Armitage, A. (1995). Comparing the policy of Aboriginal assimilation: Australia, Canada, and New Zealand, Vancouver: UBC Press.
- Cooke, M., Mitrou, F., Lawrence, D., Guimond, E. & Beavon, D. (2007). Aboriginal well-being in four Countries: An Application of the UNDP's Human Development Index to Aboriginal Peoples in Australia, Canada, New Zealand, and the United States. Canada: Thompson Books.
- Bramley, D., Hebert, P., Jackson, R. & Chassin, M. (2004) Indigenous disparities in disease-specific mortality, a cross-country comparison: New Zealand, Australia, Canada, and the United States, *Journal of the New Zealand Medical Association*, 117(1207):97-124
- Aboriginal and Torres Strait Islander Health Performance Framework 2008 report: detailed analyses, (2009, 19 January). Australian Institute of Health & Welfare, Internet only:AIHW cat. no. IHW 22;
- 21. Beautrais, A. (2003). Suicide in New Zealand: time trends and epidemiology Journal of the New Zealand Medical Association, 16 (1175)
- 22. Durie, M. (2001). Mauri Noho: despondency and despair. In M. Durie (Ed.), Mauri Ora: the dynamics of Maori Health. Auckland: Oxford University Press.
- Lovibond, P.F., & Lovibond, S.H. (1994). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories, *Behaviour Research & Therapy*, 33(3):335-43
- 24. Burke, S. (2007). Changing practices, changing paradigms: working effectively with Indigenous clients, *InPsych Bulletin*, Melbourne: Australian Psychological Society.
- Berry, S.L., & Crowe, T.P. (2009). A review of engagement of Indigenous Australians within mental health and substance abuse services, *Australian e-Journal for the Advancement of Mental Health*, 8(1), ww.auseinet.com/journal/vol8iss1/berry.pdf
- 26. World Health Organisation (2009). WHOSIS WHO Statistical Information System, http://www.who.int/whosis/en/index.html
- Frost, R. (1923). New Hampshire: A Poem with Notes and Grace Notes, New York: Henry Holt and Co.

addressing suicide contagion are essential to successful suicide postvention efforts. *Principal Leadership.* October 2009. 12–16. http://www.nasponline.org/resources/principals/Suicide_ Clusters_NASSP_Sept_09.pdf

- 29. Poland S. Preventing Cluster Suicides: Taking the right actions can prevent one suicide leading to others. October 2009. http://www.districtadministration.com/viewarticle.aspx?articleid=2159
- Hanssens L. Clusters of Suicide. The need for a comprehensive postvention response to sorrow in Indigenous communities in the Northern Territory. *Aboriginal & Islander Health Worker Journal*. March/April 2008(a); 32. (2) 25–33.
- 31. The Senate. The Hidden Toll: Suicide in Australia. Community Affairs Reference Committee. 1–177. June 2010.
- 32. Keleher, Helen (2004) Public and population health: strategic responses, in Keleher, H & Murphy, B (Eds), Understanding health: a determinants approach, 2004: 97-112, Oxford University, South Melbourne, Vic.
- 33. Stark C, Hopkins P, Gibbs D, Belbin A & Hay A. Population Density and Suicide in Scotland. *Rural and Remote Health.* www.rrh.org.au
- Reser JP. Australian Aboriginal suicide deaths in custody: Cultural context and cluster evidence. *Australian Psychologist*, 24, (3) 1989. 325–342.
- Marmot M & Wilkinson R. Social determinants of health: the solid facts, 2nd edn, Geneva. World Health Organisation. www.who.dk/ healthy-cities
- 36. Bates A. "Suicide in Aboriginal Communities" SBS *Living Black*. 17th May 2006. Series 5; Episode 11. www.livingblack.com