THE UNIVERSITY OF QUEENSLAND
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Discipline of Psychiatry

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Mr. Elton Humphery,
Committee Secretary,
Senate Committee Affairs References Committee
PO Box 610, Parliament House, Canberra.

Dear Sir,
Thankyou for your invitation, and the opportunity to provide comment to the Inquiry into Suicide in Australia. I would be honoured.

I have been dedicated to suicide prevention since 1987, and am a member of the International Association for Suicide Prevention, the International Association for Suicide Research, and a Life Member of Suicide Prevention Australia (having been National Chair from 1995-2001, and convened 6 national suicide prevention conferences). In 2008, I received the SPA 'Lifetime Contribution to Suicide Prevention Research' Award.

I was a Member of the Advisory Group, and the Evaluation Working Group, for the Australian National Youth Suicide Prevention Strategy (1994-99), a member of the writing teams for the Australian Suicide Prevention '*LiFe*' Strategy (2000, 2007), from 2003-8 a member of the National Advisory Council for Suicide Prevention, and was appointed National Advisor on Suicide Prevention to the Australian Government in early 2009.

I had the honour to lead development of the first national Media and Suicide Resource Kit ('Achieving the Balance', 1998), was an originator of the Australian Network for Promotion, Prevention and Early Intervention program (Auseinet, 1997) – a main communication vehicle, nationally and internationally, for information about suicide prevention. I created 2 national programs under the NYSPS – 'Keep Yourself Alive' (a training program for GPs and community health personnel), and 'Out of the Blues' (a demonstration program for management of depression in Youth).

In Queensland, I chair the Mental Health Promotion, Prevention and Early Intervention committee, and am a member of the Queensland Expert Advisory Group on Suicide Prevention. I also have the privilege to be a board member for OzHelp Queensland, an extraordinary suicide prevention program for building trades – an industry leader.

On a day to day basis, at The University of Queensland, we have an active research program, and I have 3 psychology honours students and 6 PHD students this year investigating various aspects of prevention of suicide through our centre.

I carry a lot of baggage and history, but I believe I will be able to contribute usefully to the Inquiry.
Yours sincerely,

Graham Martin

Graham Martin OAM, MD, MBBS, FRANZCP, DPM

Further to my response to the invitation letter from the Committee Secretary, Senate 'Inquiry into Suicide in Australia' (see attached), I seek to respond to the terms of reference within my knowledge, experience and capabilities. As a member of the Royal Australian and New Zealand College of Psychiatrists, I have made a contribution through teleconference discussions, and comments on the final draft. As a member of a multi-University collaborative research group with Dr. Andrew Page, Dr. Richard Taylor, Dr. Michael Dudley and others, I have made a contribution. As a Board Member of OzHelp Queensland, I have made a contribution through discussion with the CEO (Mr Jorgen Gallestrup) about their response.

What follows are individual personal comments, and comments derived from discussion with colleagues and students at the work of the Centre for Suicide Prevention Studies at the Discipline of Psychiatry, The University of Queensland.

a) The personal, social and financial costs of suicide in Australia

The Impact of Adolescent Suicide – A clinical story

The experience which led to my involvement in Suicide Prevention as a passionate career choice within Child and Adolescent Psychiatry, was a 15 year old girl who forged her mother's signature on a request to go to the Orthodontist, left her private girls' school, travelled into Adelaide by bus, and jumped from the 9th floor car park of John Martin's Store on North Terrace. I subsequently came to work with the family - in part to explore the history further, but also to provide grief work support for well over a year.

Christina's mother died from a heart attack ('? A broken heart') some 18 months later; she just could not come to terms with her daughter's death. The older sister (the only surviving child) herself completed suicide about 3 years later, overwhelmed by the loss of her sister and mother. The father developed hypertension and died of renal failure 10 years later. They all suffered immensely emotionally, and just could not understand the death of a perfect daughter.

When Christina landed on the pavement of North Terrace, she was within 10 feet of a young male nurse. He did what he could, handed over to the Ambulance people, and went on his way to work. By chance he was a friend of my younger son (Adelaide is a small place), and 3 months later on a visit to my home he began with “You knew that girl who killed herself…?” and broke down and cried for the next 3 hours. He needed ongoing care for several months, and when we meet occasionally now he still recalls aspects of the trauma. An accidental bystander – like the 10 or so others I never met.

Two years later, I presented to a Rotary Club meeting one night (one of many), and told the story to engage the audience in the problem of suicide. After the meeting, the Ex-manager of John Martin’s bailed me up for some time to tell his story, and weep. He had never sought care or support, but Christina’s death was in many ways the last straw before leaving the job.

In Christina’s school we set up a process of grief work with 30 teachers. Several teachers were distraught, had taken time off school, and raised issues of their competence to look after young women. The class teacher was very traumatised, and raised one question that was very hard to consider: “What do I do with the desk?” The consensus was that she should ask the girls from the class; the desk was left for the next month, and then moved to the back of the class for the end of term. Every day a fresh flower was placed on the desk.

The work with the girls entailed 30 young women with whom we spent over 2 hours, who then completed questionnaires. Through this, the results from the scales, and from other discussion, we found out that 2 girls had attempted suicide one the day after, and one within the week after Christina’s death (“If she can succeed, then I need to give it another go…”), at least 8 more deserved formal assessment, and 4 were placed in therapy.

This description of events is not unusual. Various estimates of the ripple effect out from a suicide have suggested it might be 6-10 people who are badly affected, including family members. My personal experience is that this is a gross underestimate, and the costs from inability to work are hidden and not accounted for in calculations that exist.

Members of the Senate Inquiry, you will hear a wide range of estimates of the cost (perhaps somewhere around $250,000 per suicide), but the personal and social costs over time are immeasurable. Every thing we can do to reduce the numbers in Australia reduces the pain, reduces the exposure, reduces the copycat behaviour, reduces the inner sense in all of our minds (and the pervasive belief in our society) that suicide is always an option.

Christina's case raises another issue that is rarely considered. She was never abused, came from a caring middle class family, was a straight A student, played second violin in the orchestra, and played in the school soccer team. She was well liked by staff and students, and despite an intense search through her writings to find some clue, one was never found. The dilemma is …. How do you prevent this kind of not so rare suicide? There is no Early Intervention, we never get to analyse risks or get a risk form completed, we never get the opportunity to prevent – except afterward. To my mind this raises some fundamental issues about our society, how we parent, how we instil Resilience and Optimism in young people, how we keep them connected to family, friends and groups and clubs. You will hear lots about the Pathways to Suicide, about suicide in those with mental illness, or from special groups, and this may be about services, professional skill, the use of psychotherapy and medication.

On the other hand, we will only stop the Christinas of our world by Universal programs in our communities, schools and families, through Mental Wellness Promotion, by developing a sane sensible and caring Australian society. If that sounds too broad or too loosely construed so be it.

Christina's death led my team (then at Flinders University) to devise school-based programs. First, we did 17 cross sectional studies that built to a large-scale 3-year longitudinal study of risk in young people. We said to ourselves: “ If we can discover so many troubled and suicidal people after a suicide, why can't we find them before someone dies?” I won't bore the Committee with all the studies, but a list of papers appears in the publication list.

Building programs in Schools (Queensland)

I PUT THESE PROGRAMS AT THIS POINT BCUSE THERE IS NOT A CATEGORY IN WHICH TO PLACE THEM IN THE SENATE ENQUIRY, YET THEY ARE AN OUTCOME FROM THE SUICIDE OF THE FIRST OF MANY ADOLESCENTS I HAVE EXPERIENCED.

The interest in school-based prevention continues to the present day, but we have devised a rather nice program that is not about education around suicide; it is '*the program you use to prevent suicide when no-one actually mentions the word'*. Rather it is about building strengths, optimism, connectedness, and social skill. A key part of this is a program on Pathways to Care for those young people who show up as particularly disturbed and in need of further help.

The process is 20 weeks (2 terms) of an internationally acceptable program based on 'Aussie Optimism' from Dr. Clare Roberts at Curtin University. We don't just provide the training to teachers to run the program, set it all up and move on. We do pre- and post-testing, and compare the results. Then we sit down with year coordinators and senior staff in the school, and work out in school programs for those who need the help, and for those we are really concerned about, we engineer referral to local child and youth service. We have found it hard to gain funds despite the successes of the program, so we are operating mostly in schools prepared to pay on a 'user-pays' basis.

A recent paper from our group (which accompanies this submission):

Swannell, S., Hand, M. & Martin, M., 2009. The Effects of a Universal Mental Health Promotion Programme on Depressive Symptoms and Other Difficulties in Year Eight High School Students in Queensland, Australia. School Mental Health, Published online September, 2009. DOI 10.1007/s12310-009-9019-4

Building programs in Aboriginal Schools (Queensland)

We are in the process of developing a version of this program for Aboriginal young Australians. Two PHD students (one an Aboriginal Australian) have been engaged to use funding provided by Queensland Health to create the program (based on Aussie Optimism). We are one year into development with 2 more years to go, and are currently working with 3 schools in Queensland who are helping us to get the approach right.

On the face of it, this is not directly a suicide prevention program, but it is precisely that - taking a long-term view. It is a long-term outcome from Christina's death.

Aboriginal Social and Emotional Wellbeing and Aboriginal Suicide

The work in Aboriginal Schools is in part an off-shoot from another piece of academic work in Aboriginal Suicide Prevention. This work could be placed in category f.) in the Senate Inquiry listing of issues, but is better placed here because of its coherence with other programs. With funding from Queensland Health we completed a Literature Review on Indigenous Suicide, and this is now available for download from our SuicidePreventionStudies site in pdf format. (a copy is attached to this submission).

Krysinska, K., Martin G. & Sheehan N., 2009. Identity, Voice, Place: A Framework for Suicide Prevention for Indigenous Australians based on a Social and Emotional Wellbeing Approach. The University of Queensland. (downloadable in pdf format from http://www.suicidepreventionstudies.org/index.html)

Respectfully, we hope that you will find time for this document, which comes with a clear Executive Summary and some Recommendations. I would value the opportunity to discuss these with members of the Senate Inquiry. Related to this Review, I have recently completed another piece of work for DOHA in my role as National Advisor in Suicide Prevention. This is a Review of National Strategies (of which more later in sections b and h). The New Zealand Suicide Prevention Strategy can be demonstrated to have been very successful in the area of reducing Maori Suicide. This is in part because of a separate national Maori strategy to go with the dedicated funding. Although Canada does not have a national strategy as such, they have taken a national approach, and again they have been quite successful with reducing Indigenous suicide. The conclusion is that Australia may need a National Aboriginal Suicide Prevention Strategy, if we are serious about reducing suicide in Aboriginal Australians. Our literature review may go some way to inform such a strategy.

CadetLife

CadetLife is another program deriving directly from all the work emerging from the death of Christina.

In 2000 a young woman hung herself, following repeated harassment. I was approached by The Australian Defence Force Cadets to devise an Awareness Raising Program for the ADFC. Giving my reasons for not doing such a program, instead I offered a Mental Health Promotion program, based on the existing Cadet program (ie a Youth Development Program). My proposal was accepted. We have devised a program of 13 small group discussions spread over 2 years – Cadets only meet once a week for 3 hours. The discussions are facilitated by a staff member or senior cadet/under officer, and are based on video scenarios, 6 of which are about the development of health and wellness, and 7 of which are based on recognition of potential emotional problems based in self or another. The video probes are followed by guided discussion and then structured tasks.

To date we have trained over 180 Mentors and 500 facilitators in the 3 services, and the program begins formally for the 22,000 Cadets in January 2010. The program will be fully evaluated on line. We do not have documents to hand that can be put into a pdf. If the members of the Senate Inquiry are interested in the program – essentially Suicide Prevention through Wellness training + Pathways to Care, I would be delighted to present a very brief powerpoint to demonstrate the program, as well as provide handouts.

b) The accuracy of suicide reporting…..

I am certain that many people will address this issue, and I have already contributed to the RANZCP statement about this area of discussion. It is clear that

- accurate descriptions about what is and what is not a suicide,
- a country that follows the International Classification of Disease categories,
- Coroners who are well trained and in agreement about how to report,
- A good National Coronial Information System
- sufficient resources at the Australian Bureau of Statistics to allow proper management of data and timely reporting

are all crucial to our ability to make sense of what is happening in Australia and provide responses, at all levels, to target risk groups. However, misunderstanding and misallocation have always been with us, and are likely to continue into the future. Other countries appear to have much more misallocation than Australia in terms of percentages! Misallocation has so far not got in the way of developing our programs in Australia. There was clearly a particular problem around 2003, which has now been corrected.

We could spend hours and hours on the specifics of data problems, and forget that what we are supposed to be doing is to develop appropriate community based programs that assist Australians to avoid becoming a statistic.

My colleagues and I have recently completed an analysis of the decline in suicides since 1998, and considered various percentage misallocations. The paper is currently in press with the Australian and New Zealand Journal of Psychiatry and suggests that the problems in 2003 do not detract from the strong impact that the Australian Strategy has had, and the continuing decline in suicides in this country. We hope that a copy of the paper will be available for the sittings in April 2010.

Page, A., Taylor, R. & Martin, G. Recent declines in Australian male suicide are real, not artefactual. Australian and New Zealand Journal of Psychiatry. Accepted for publication.

c) the appropriate role and effectiveness of agencies…

Since Gunnell and Frankel published their seminal report in 1994: (Gunnell D., Frankel S., 1994. Prevention of suicide: aspirations and evidence. British Medical Journal, 308:1227-1233), we have struggled to put in place programs that might address the key times around hospitalisation of people with mental disorders. It is clear that hospitalisation itself is a time of heightened risk of suicide, but it is the 2-4 weeks after discharge that provides the greatest risk – some 200 times the population risk. Overall, while there are demonstration programs that do well, mostly the connection between hospital and community services is not good or timely, the follow-up of the patient is erratic and poor, and we need to encourage services to put into place best practice.

This may not be a role for the Commonwealth, but it is hoped that the ongoing work between the Australian and state governments through COAG will influence the quality of work in this area.

d) The effectiveness, to date, of public awareness programs…

In my recent review of National Strategies for the Australian Government, it is clear that those countries that have worked hard to educate the public have had good results. Where engagement has been poor, then program development has been less well received. Two recent papers have suggested the key issue of help-seeking may be central to reducing suicide:

Kapusta, N, Niederkrotenthaler, T, Etzersdorfer, E et al., 2009. Influence of psychotherapist density and antidepressant sales on suicide rates. Acta Psychiatrica Scandinavica, 119: 236-242.

Reseland, S., Bray, I., Gunnell, D., 2006. Relationship between antidepressant sales and secular trends in suicide rates in the Nordic countries. British Journal of Psychiatry, 188: 354-8.

In the review, I wrote: “Even where we do seem to have reasonable evidence [for an intervention], any interpretation about causality may be complex and arguments will continue. As an example, we think we know that antidepressants (particularly Selective Serotonin Reuptake Inhibitors - SSRIs) not only improve depression, but also reduce the likelihood of suicide attempts (eg Simon et al., 2006). Increased SSRI prescribing appears to have reduced suicide rates in some countries (eg Isaacson, 2000). However, autopsy studies of people prescribed antidepressants and who later suicide, often show a complete absence of antidepressants in the system prior to death, and recent research has disputed the direct causal effect on suicide rates, noting that rates began to fall *prior to* the onset of increased use of antidepressants (Reseland et al., 2006). This again may suggest that a third factor is involved. Perhaps with increased awareness of suicide and its prevention in a country, more people seek help and more are therefore prescribed antidepressants. However, it is actually the increased knowledge that help is at hand, and the act of help-seeking that leads to the reduction. Increased prescribing is associated, but may not be causal.

A similar example exists with psychotherapy. We think we know that Psychotherapy and psychosocial treatments (eg Cognitive Behavioural Therapy or Dialectical Behavioural Therapy) for mental disorders reduce suicidal behaviour (eg Brown et al., 2005). However, recent work suggests the impact of psychotherapy in a community or population could be simply the availability of psychotherapists (as a proxy for relevant healthcare services) in that community as much as the actual therapy (Kapusta et al., 2009). Perhaps people have heard that increased or improved services are available, and are more likely to stop and think, and then possibly seek help rather than going through with an impulsive act. Both of these cases suggest the importance of the third factor (help-seeking) as a possible cause of reduced suicide. At this point, these ideas are perhaps in the realm of conjecture, and deserve to be further evaluated. But if it were true it might make sense of why increased knowledge for the community and for professionals can make a difference, particularly when increased or improved services are available.”

e) The efficacy of suicide prevention training and support….

Suicide prevention training was again one of the areas addressed in the National Strategy Report to DOHA. Suffice to say here that countries with successful strategies put a large percentage of their resources into this area. My hope is that this report will be released to the Senate Enquiry before April so that my comments can be amplified.

At this point, two examples from my own practice will support the efficacy and importance of this area.

The first is the program 'Keep Yourself Alive' funded originally under the National Youth Suicide Prevention Strategy. This was a video based 6 hour workshop program which eventually trained 7% of General Practitioners in Australia (the primary target), as well as an additional 5000 community health personal in 150 workshops across the country. A variant of the program was used in Queensland to train 350 mental health personnel. A seeding program was used to encourage those trained to utilise the kits to train others (a train the trainer program). Kits are still available, the program is still cogent, and I still receive feedback about ongoing training programs using the kits. Reports from the program showed good results from evaluations.

Any parts of the program, videos or reports could be made available on request

> Martin G., Clark, S., Beckinsale, P., & Lorraine, J., 1997. Keep Yourself Alive: Videotape based, Manualised Workshop Package, funded under the National Youth Suicide Prevention Initiative, Department of Health and Ageing, Canberra.
>
> Martin, G., Clark, S., Beckinsale, P., Skene, C. & Stacey, K., 1997. Keep Yourself Alive: prevention of suicide in young people. A Manual for Health Professionals. Adelaide, Foundation Studios. ISBN 0 646 32424 1. Funded under the National Youth Suicide Prevention Initiative, Department of Health and Ageing, Canberra.

Martin G., Clark, S. & Beckinsale, P., Dearden, M. & Hickey, A., 1997. After Suicide: Picking up the Pieces. The fourth of 4 educational videotapes for General Practitioners, Adelaide.

Martin G., Clark, S. & Beckinsale, P., Dearden, M. & Hickey, A., 1997. Youth Suicide: What do I do next? The third of 4 educational videotapes for General Practitioners, Adelaide.

Martin G., Clark, S., Beckinsale, P., Dearden, M. & Hickey, A., 1997. Youth Suicide: What do I do now? The second of 4 educational videotapes for General Practitioners, Adelaide.

Martin G., Dearden, M. & Hickey, A., 1997. Youth Suicide: Recognizing the Signs. The first of 4 educational videotapes for Teachers and Youth Workers. Child Health Foundation/ Springfield Help for Small Charities, South Australia.

Martin, G., Beckinsale, P. & Clark, S., 1999. Keep Yourself Alive: The Final Report. KYA, Southern Child and Adolescent Mental Health Service, Adelaide.

Martin, G., Beckinsale, P. & Clark, S., 1999. Keep Yourself Alive: Evaluation Report: Community Health Professionals. KYA, Southern Child and Adolescent Mental Health Service, Adelaide.

Clark, S., Martin, G. & Beckinsale, P., 1999. Keep Yourself Alive: Evaluation Report: Qualitative Data. KYA, Department of General Practice, University of Adelaide.

Beckinsale, P., Martin, G. & Clark, S., 1999. Keep Yourself Alive: Evaluation Report: General Practitioners. KYA, Quality Assurance and Continuing Education Unit, Royal Australian College of General Practitioners, Adelaide.

Beckinsale, P., Martin, G. & Clark, S., 2001. Youth Suicide Issues in General Practice. Australian Family Physician, 30: 4, 391-394.

The second example relates to a recent series of suicides in Mackay. A training program for medical personnel, followed by one for community health personnel and then for mental health personnel, followed by several teleconference discussions led to a number of successful strategies being used in the

community, a change in the way that youth mental health services saw their role, changes in subsequent practice, and much closer links between relevant services in the city and surrounds. This has now been written up by one of the local mental health workers (Ben Hansen, Team Leader, Child & Youth Mental Health, Mackay Integrated Mental Health Service) for publication.
If the Inquiry is interested in this paper, I am sure we can arrange for a copy to be distributed.

f) The role of targeted programs…. for high risk groups

There are many high-risk groups that have been included in the various Australian strategies and for whom programs have been developed. Equally there are some groups that have been ignored. One of these groups consists of people who self-injure without necessarily wanting to die. Professor Keith Hawton from Oxford makes the point that as they continue to self-harm, self injurers become more likely to attempt suicide, and may eventually complete suicide (Hawton, K., Zahl, D. & Weatherall, R. (2003). Suicide following deliberate self-harm: long-term follow-up of patients who presented to a general hospital. *The British Journal of Psychiatry*, 182:537–54.). Our research group currently has 10 projects in process or recently completed. Some of these are small epidemiological studies of University students; some are studies on clinical groups, and one is an evaluation of a new therapy.

Prevalence estimates across the world vary, so it has been unclear just how big a problem self-injury might be in Australia. Clinical experience suggests that there may have been a recent increase in young people, and this has certainly been reported by schools. However, even within young people, rates vary between populations. Using funding from the Australian Government Suicide Prevention Strategy our group in Queensland has completed a study of a nationally representative sample of 12,006 Australians.
There are some surprises. First 1.1% of Australians claimed to have self-harmed in the previous month (more than 200,000). An average 15% may have sought

medical care, 4% attended Emergency Departments, 5.6% were admitted. A conservative estimate suggests the cost of the behaviour may be some A$2.5 million a week!

The second surprise was that self-injury in Australia, as with international samples peaks in the 18-35 age group. However, there are a surprisingly large percentage of self-injurers who are damaging themselves even after age 55 years.

The third surprise is that of those who had self-injured in the past month, – 53.7% had attempted suicide at some stage in their lifetime (compared to 7.7% of non self-injurers ; OR 13.8). This is a group at major risk for suicide attempts, and if Hawton is right, then this group may be making a substantial contribution to suicide rates.

It may be crucial to understand self-injury better, and also develop a range of programs for the group. A pdf copy of our pre-publication penultimate report is attached to this submission. We hope to have a printed version prior to April 2010.

h) The effectiveness of the National Suicide Prevention Strategy

Having just completed a review of international strategies and compared them with Australia, I am in a position to say that our strategy has been successful in reducing suicide rates – especially in men.

Having just delivered the final draft report to DOHA, I am unable to attach the complete report, but will endeavour to have a completed report and the necessary permissions prior to April 2010.

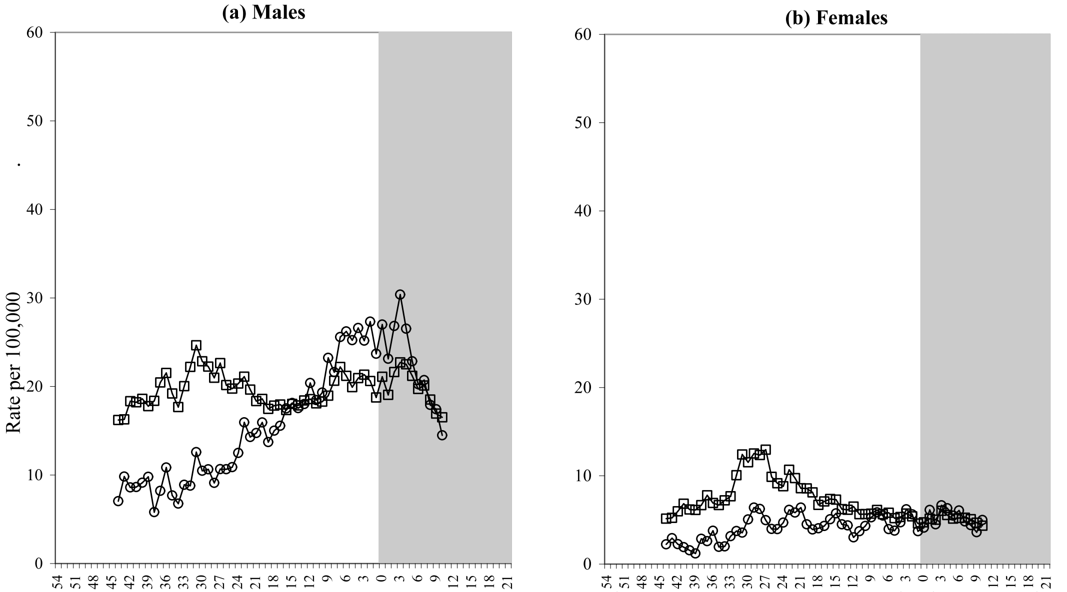
What I am able to say is that

"In Australia, the overall average suicide rate form 1950 for males was 21.5 per 100,000, and the average rate for the first 5 years post-strategy stayed 12.9% above this average, but has subsequently declined to 2.5% below the pre-strategy average. Within this the overall average youth male rate pre-strategy was 16.5 per 100,000, and because of the steep pre-strategy rise, even after the start of the strategy stayed at an average 62.5% above the pre-strategy rate, although this has dropped to an average 14.7% above pre-strategy rates in the last few years.

Overall from 1950, the female rate pre-strategy was an average 8 per 100,000, and the overall decline pre-strategy continued post-strategy with an average 26.1% lower rate in the first 5 years, and 31.9% average lower rate through the next few years. Within this the average youth female rate (4.4 per 100,000 pre-strategy) rose to be 26.3% higher on average for the 5 years after the strategy began, but then declined to be only 11.4% above the pre-strategy average rate for the last few years.

The slope for males overall pre-strategy shows a steady climb of 0.3% per annum pre-strategy, and this had accelerated to 1% per annum on average in the period prior to strategy implementation (a period equal to the years post-strategy). This changed to a 2.3% decline post-strategy (p<0.02). Within this male rate, the youth male rate shows a climb for all the years pre-strategy of an average 3.3% per annum for the period prior to the beginning of the strategy. Post-strategy there has been a sharp reversal to a decline of 5.4% per annum since the start of the strategy that is highly significant when compared with (p<0.001).

Figure 8: Suicide rates in Australia for all ages (age-adjusted) and youth, pre- and post-strategy intervention.



For females overall, the slope for all of the years pre-strategy was an average 1.0% per annum decline overall since 1950. For the 12 years pre-strategy, this was very similar at a 1.1% average decline per annum, and this has stabilised post- strategy at 1.0% per annum (NS). Within this, the youth female slope pre-strategy was an overall increase of an average 1.2% per annum. In the pre-strategy years, this had slowed to a 0.7% increase per annum. Subsequent to the strategy beginning, and mirroring the youth male rate, the female youth rate shows a sharp reversal to a decline of 1.7% per annum average although because of somewhat small numbers this does not reach significance (NS).

It is worthy of note that there was a peak of suicide rates for all groups in 1997, 2 years after the Australian strategy formally began. This points to a feature of strategies, which is that although there may have been a build-up of discussion in the media, and publicly, prior to a strategy beginning, nevertheless there may be some lag time before a strategy begins to have impact.”

Publications on suicide and its prevention in young people

Swannell, S., Hand, M. & Martin, M., 2009. The Effects of a Universal Mental Health Promotion Programme on Depressive Symptoms and Other Difficulties in Year Eight High School Students in Queensland, Australia. School Mental Health, Published online September, 2009. DOI 10.1007/s12310-009-9019-4

Rigby, K., Slee, P. & Martin, G., 2007. Implications of inadequate parental bonding and peer victimization for adolescent mental health. Journal of Adolescence, 30:801–812.

Colucci, E. & Martin, G., 2007. Ethnocultural Aspects of Suicide in Young People: A Systematic Literature Review. Part 2: Risk Factors, Precipitating Agents and Attitudes Towards Suicide. Suicide and Life-Threatening Behavior. 37(2), April, 222-237.

Colucci, E. & Martin, G., 2007. Ethnocultural Aspects of Suicide in Young People: A Systematic Literature Review. Part 1: Rates and Methods of Youth Suicide. Suicide and Life-Threatening Behavior. 37(2), April, 197-221.

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Stathis, S. & Martin G., 2005. A Preliminary Case Series in the Use of Quetiapine for Posttraumatic Stress Disorder in Juveniles within a Youth Detention Center. Journal of Clinical Psychopharmacology. 25:6, 1-6.

Bergen, H., Martin, G., Allison, S. & Roeger, L., 2005. Perceived academic performance and alcohol, tobacco and marijuana use: longitudinal relationships in young community adolescents. Journal of Addictive Behaviours, 30; 1563-1573.

Richardson, A., Martin, G., Bergen, H., Roeger, L. & Allison, S., 2005. Perceived Academic Performance as an Indicator of Risk of Attempted Suicide in Young Adolescents, Archives of Suicide Research, 9:163–176.

Martin, G., Richardson, A. S., Bergen, H. A., Roeger, L., & Allison, S., 2005. Perceived Academic Performance, Self-Esteem and Locus of Control as Indicators of Need for Assessment of Adolescent Suicide Risk: Implications for teachers. Journal of Adolescence. 27:1, 75-87.

Martin, G., Bergen, H., Allison, S. & Roeger, L., 2004. Depression in young adolescents: Investigations using 2 and 3 factor versions of the Parental Bonding Instrument (PBI). The Journal of Nervous and Mental Disease. 192:10, 650-657.

Martin, G., Bergen, H., Richardson, A., Allison, S. & Roeger, L., 2004. Sexual Abuse and Suicidality: Gender Differences in a Community Sample of Adolescents. Child Abuse and Neglect, 28:5, 491-503.

Martin, G., Bergen, H., Richardson, A., Allison, S. & Roeger, L., 2004. Profiles of Self-confessed fire-setters in a large community sample of young adolescents. Australian and New Zealand Journal of Psychiatry. 38:148-154.

Bergen, H., Martin, G., Richardson, A., Allison, S. & Roeger, L., 2004. Sexual Abuse, Antisocial Behaviour and Substance Abuse: Gender and Age Differences in Young Community Adolescents. Australian and New Zealand Journal of Psychiatry, 38:34–41.

Bergen, H., Martin, G., Richardson, A., Allison, S. & Roeger, L., 2003. Sexual Abuse and Suicidal Behavior: A model constructed from a large community sample of adolescents. Journal of the American Academy of Child and Adolescent Psychiatry. 42:11, 1301-1309.

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ORIGINAL PAPER

The Effects of a Universal Mental Health Promotion Programme on Depressive Symptoms and Other Difficulties in Year Eight High School Students in Queensland, Australia

Sarah Swannell · Matthew Hand · Graham Martin

Abstract A 20-week universal mental health promotion programme (the Aussie Optimism Program), based on cognitive–behavioural intervention procedures and targeting cognitive and social risk and protective factors, was delivered to 417 year eight students (mean age 13 years) from three secondary schools in Brisbane, Australia. Students were assessed with the Centre for Epidemiological Studies Depression Scale, Children's version, and the Strengths and Difficulties Questionnaire before and after completing the programme. Results indicated that the programme was most beneficial for students experiencing emotional and behavioural difficulties before commencement of the programme; however, the lack of a control group and other methodological limitations prevents conclusions being drawn about the efficacy of this programme. Nevertheless, the results raise the question of whether the costs of developing and maintaining a universal mental health promotion programme outweigh the benefits of helping only a small proportion of students.

Keywords Universal mental health promotion · Depression · Adolescents · Early intervention · Aussie Optimism Program

Introduction

It is estimated that 5–14% of Australian adolescents experience anxiety and depressive disorders with a large proportion not seeking assistance (Sawyer et al., 2000). Anxiety and depression result in considerable costs to the individual and society (Rao et al., 1995). In Australia, school-based mental health promotion programmes are increasingly seen as an ideal vehicle to address mental health problems in adolescents who otherwise would not seek help (Stewart-Brown, 2006). Such programmes are designed to prevent mental health symptoms and promote mental well-being in a non-stigmatising way (Offord, 2000). They help young people deal effectively with their current level of symptoms, reduce the impact of symptoms, shorten the episode of care, reduce distress, enhance protective factors, and improve overall outcomes (Harrington & Clark, 1998). Further, mental health promotion aims to reduce the financial cost, dependency, and disability associated with mental health problems (Harrington & Clark, 1998).

Prevention programmes can be classified into three categories: universal, selective, and indicated. Universal programmes are delivered to entire populations, regardless of the presence or absence of risk factors or symptomology. Selective programmes are targeted towards groups who are at high risk of developing a disorder, and indicated programmes are delivered to individuals showing mild to moderate signs of the disorder (Mrazek & Haggerty, 1994). Each type of programme has advantages and disadvantages. Universal prevention programmes do not stigmatise individuals or groups who may be at risk, which is seen as a significant disadvantage of selective or indicated programmes (Shochet et al., 2001). However, universal preventive programmes have been criticised for the cost associated in implementing and maintaining a programme where a *whole* population participates to prevent unfavourable outcomes in potentially a few individuals (Harrington & Clark, 1998).

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The underlying theory supporting mental health promotion is that psychological and emotional distress may be affected by attitudinal or cognitive style (Beck, Rush, Shaw, & Emery, 1979; Ciccetti, 1993), and that attitudes and cognitions can be altered and improved. In Australia, several school-based programmes based on these principals have been developed, including FRIENDS (Barrett, Lowry-Webster, & Turner, 1999), the Resourceful Adolescent Program (RAP; Shochet, Holland, & Whitefield, 1997), Problem Solving for Life (PSFL; Spence, Sheffield, & Donovan, 2003), beyondblue (Spence et al., 2005), MindMatters (Hazell, 2006), and the Aussie Optimism Program (Bishop & Roberts, 2005).

The Aussie Optimism Program is an adaptation of the United States Penn Prevention Program (PPP; Gillham, Reivich, Jaycox, & Seligman, 1995; Jaycox, Reivich, Gillham, & Seligman, 1994), a North American school-based programme shown to be effective in reducing depressive symptoms (Gillham et al., 1995). An eight session Australian adaptation of the PPP was piloted with pre-adolescent girls in Western Australia and resulted in reductions in depression after the girls made their transition to high school (Quayle, Dziurawiec, Roberts, Kane, & Ebsworthy, 2001). The full 12-session PPP was then implemented by school psychologists and nurses in rural communities in Western Australia, targeting pre-adolescents with elevated levels of depressive symptoms (Roberts, Kane, Thomson, Bishop, & Hart, 2003). The programme was associated with reductions in anxiety up to 3 years after intervention, and reductions in anxiety-mediated depressive symptoms at this 3-year follow-up (Roberts, Kane, Bishop, Matthews, & Thomson, 2004).

Although the programme was successful in reducing anxiety and depression, it was criticised by the Australian Department of Education for not being a *universal* mental health promotion programme, which constrained its use in schools because it would require parallel programmes to be developed for children with no risk factors or symptomology. It was also limited in that only psychologically trained school staff could deliver it. Consequently, PPP was modified so that it could be embedded within the local education system and implemented by teachers with little psychological training. The resulting programme was the Aussie Optimism Program (Roberts, Kane, Bishop, Cross, & Fenton, 2004).

The Aussie Optimism Program has been running as a universal mental health promotion programme since 2003 with more than 5,000 children from over 100 schools, in both city and rural areas of Western Australia (Roberts & Ho, 2007). We started running the Aussie Optimism Program in Queensland in 2005 among year eight students. As part of the programme, a screening element was introduced whereby children completed a depression questionnaire and a strengths and difficulties questionnaire in order to identify and offer extra support to children experiencing clinical levels of emotional and/or behavioural problems. Children completed the questionnaires before and after participating in the Aussie Optimism Program. Anecdotal evidence out of Western Australia indicates that the Aussie Optimism Program has been successful in reducing symptoms of anxiety and depression among pre-adolescents as they make their transition to high school; however, no peer-reviewed published evaluation results are available. Therefore, we decided to use the screening data that we had collected in order to determine whether any changes had occurred in emotional and behavioural functioning from before to after participating in the Aussie Optimism Program.

Aims and Hypotheses

The aims of this study were to determine whether the Aussie Optimism Program would produce the same positive results as those shown in previous studies using the PPP and adaptations of the PPP (Gillham et al., 1995; Quayle et al., 2001; Roberts et al., 2003; Roberts, Kane, Bishop, Matthews, et al., 2004), and the anecdotal positive results shown among year eight students in Western Australia. We were also interested to see whether the Aussie Optimism Program was more effective in reducing depressive symptoms in females, compared to males, as evidenced in the study looking at the precursor to the Aussie Optimism Program (the PPP; Gillham et al., 2006). In addition, since the programme was conducted in Independent, Catholic, and Public schools, we were interested to see whether the outcomes were affected by school type. In Australia, it is commonly believed that students from private schools do better than students from public schools due to better quality teachers and more individualised attention (Masters, 2004). In light of these considerations, the hypotheses for this study were that (1) the overall scores on depression and emotional/behavioural difficulties would decrease from before (time one) to after (time two) Aussie Optimism; (2) this decrease would be most prominent among students scoring in the clinical ranges of depression and emotional/behavioural difficulties at time one; (3) females would show a greater improvement on depressive symptoms compared to males; and (4) students from the Independent and Catholic schools would show greater improvement on depression and emotional/behavioural difficulties compared to students from the Public school.

Method

Participants

Participants were five cohorts of year eight students from three high schools in Brisbane, Queensland (one

Independent, one Catholic and one Public school) collected over 3 years.

At baseline, the schools differed in several important ways (see Table 1). The Independent and Public schools were co-educational, and the Catholic School was an all-girls school. Socio-economic status (SES, according to socio-economic indexes for areas [SEIFA] scores) was highest for the Independent school (score = 1,076), followed by the Catholic school (score = 1,040), followed by the Public school (score = 1,005), and this was reflected in their overall school rankings within the state of Queensland (ABS, 2006). SES was also reflected in annual expenditure on professional development for teachers, with the Independent school spending \$119,000, the Catholic school spending \$34,000, and the Public school spending \$17,148 in 2007 (data obtained from school 2007 annual reports). The Independent and Catholic schools had higher percentages of teachers with Bachelors and Masters Degrees compared to the Public school, and student attendance and retention were higher in the Independent and Catholic schools compared to the Public school (data obtained from school 2007 annual reports).

The aim was to have all participants complete the Centre for Epidemiological Studies Depression scale for children (CES-DC) and the Strengths and Difficulties Questionnaire (SDQ) before (time one) and after (time two) participating in the programme.

At time one, $n = 417$ participants completed the CES-DC and $n = 341$ participants completed the SDQ (one cohort from the Independent school did not complete the SDQ). At time two, 86% ($n = 359$) of the original sample completed the CES-D and 89% ($n = 302$) of the original sample completed the SDQ. The students who failed to complete the screening measures at time two did not score significantly differently to the group as a whole on time one measures of the CES-DC (non-completers: $M = 11.12$, SD = 9.02; all students: $M = 12.62$, SD = 10.21; $Z = -0.947$, $p = .343$) or SDQ (non-completers: $M = 13.62$, SD = 6.16; all students: $M = 12.05$, SD = 5.68; $Z = -1.739$, $p = .082$). Although age was not collected as part of the project, the average age of year eight students in Queensland is 13 years.

Sex was collected for all cohorts except for Cohort one of the Independent School (the same cohort for which SDQ data were not available), resulting in CES-DC data for 212 females and 86 males, and SDQ data for 213 females and 87 males at time one and two.

Outcome Measures

Centre of Epidemiological Studies Depression Scale for Children (CES-DC; Weissman, Orvaschel, & Padian, 1980)

The CES-DC is a widely used 20-item self-administered depression screening tool for children and has demonstrated good reliability and validity (Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986; Weissman et al., 1980). The CES-DC was modelled after the original CES-D developed for use in adults (Cheung, Liu, & Yip, 2007; Garrison, Addy, Jackson, Mckeown, & Waller, 1991; Radloff, 1991). Higher CES-DC scores indicate higher levels of depression. In line with previous research (Weissman et al., 1980), in this study, scores of 0–15 were

Table 1 Baseline demographical and SES differences between schools

	Independent school	Catholic school	Public school
N	483 (years 8–12 only)	454	719
Year levels	P-12	8–12	8–12
Sex	Co-educational	All girls	Co-educational
Qualifications of teachers	Diploma—7%	Diploma—11%	Diploma—30%
	Bachelors—77%	Bachelors—70%	Bachelors—40%
	Masters—16%	Masters—20%	Masters—15%
Expenditure on professional development for teachers	\$119,100	\$34,000	\$17,148
Student attendance	96%	93%	88%
Student retention rate (from year 8 to year 12)	88%	88%	64%
Queensland rank[a]	1,707	1,545	1,288
Qld decile[b]	9	9	7
Qld percentile[c]	90	82	68

[a] Ranked in order of score, from lowest to highest

[b] Decile 1 contains the bottom 10% of scores, Decile 2 contains the next 10% of scores and so on

[c] Percentile 1 contains the bottom 1% of scores, Percentile 2 contains the next 1% of scores and so on

considered normal, scores 16–30 were considered borderline, and scores 31–60 were considered to indicate clinical depression.

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997)

The SDQ is a 25-item self-report scale, with answers scored on a three-point Likert scale of *not true, somewhat true, and certainly true*. The 25 items convert to scores for five clinical scales; Hyperactivity, Emotional Symptoms, Conduct Problems, Peer Problems, and Prosocial Behaviour. The score can range from 0 to 10 for each clinical scale, and summing the scores for all scales excluding the Prosocial Behaviour scale results in the *Total Difficulties Scale* with a possible score from 0 to 40. Higher scores reflect higher levels of distress. The SDQ correlates highly with the Rutter Questionnaires and the Child Behaviour Checklist (Goodman 1997; Goodman & Scott, 1999) and has demonstrated acceptable levels of internal reliability and consistency across different cultures (Hawes & Dadds, 2004).

The Aussie Optimism Program

The Aussie Optimism Program aims to prevent internalising problems in children and adolescents and is distinguished from other Australian school-based mental health promotion programmes by its focus on students aged 11–13 years who are preparing for high school or have just transitioned to high school. The Aussie Optimism Program is unique as it runs for a considerably longer time period than other Australian programmes (20 weeks), a characteristic recommended by the 2006 WHO review of school health promotion (Stewart-Brown, 2006). The programme is based on cognitive–behavioural intervention procedures and has two components, the Optimistic Thinking Skills Program (Roberts, Roberts, et al., 2002), which targets cognitive risk and protective factors for internalising problems, and the Social Life Skills Program (Roberts, Ballantyne, & van der Klift, 2002), which targets social risk and protective factors. The optimism component teaches children to identify and challenge negative thoughts about the self, current life circumstances, and the future that contribute to depressive and anxiety symptoms (Beck et al., 1979; Kendall, 2000). In addition, attribution retraining (Seligman et al., 1988) is used to help children make more accurate and optimistic explanations for both positive and negative life events. Children are taught to accurately identify, label, and monitor their feelings. The social component of the programme involves teaching children listening skills, assertiveness, negotiation, social problem-solving skills, decision-making, and perspective taking (Seligman, Reivich, Jaycox, & Gilham, 1995). The children learn coping skills for dealing with a variety of controllable and uncontrollable life stresses, such as family conflict and making the transition to high school. These coping skills include strategies for actively solving problems, coping with negative emotions aroused by uncontrollable events, and seeking appropriate social support. School newsletter items and parent booklets are used to inform parents of the programme content and to promote generalisation of skills in the home setting (Roberts et al., 2002a, b).

All teachers who delivered Aussie Optimism attended two full days of training (one day for Social Life Skills and one day for Optimistic Thinking Skills) prior to delivering the programme. The training was conducted by an Aussie Optimism teacher trainer, who was trained by the programmes' creator at a 5-day workshop. Training of teachers was conducted either at the school or at the University of Queensland. Additional school staff members (i.e., Deputy Principals, Guidance Counsellors) were also welcome to complete the training for their information and understanding of the programme, and in case they were required to deliver a class when a teacher was unable to.

Trained teachers use scripted manuals to present didactic information, games, role plays, activities, and worksheets which relate to how the children think, feel, and react when faced with challenges and stresses in their lives. The children complete class worksheets and homework exercises to reflect on their performance and practice skills in their home environment.

Procedure

The Aussie Optimism Program was run during school time, for 1 h per week over 20 weeks, with 10 weeks devoted to Social Life Skills and 10 weeks devoted to Optimistic Thinking Skills. Most schools delivered the programme within their personal development curriculum or pastoral care class.

Teachers delivered the programme according to the manuals (one for each module), which outline the activities to be completed in each lesson as well as approximate time of how long each activity should take (see Table 2 for the lessons). Teachers were trained in each module during their initial training.

Data were collected over 3 years (2005, 2006, and 2007). At the beginning of each school year, information sheets and consent forms were either sent home with students or posted to parents. On receipt of the signed consent form, the student was identified as a potential participant of the project. As part of the normal school routine, the school personnel provided follow-up with unreturned consent forms. Contact details were provided for parents to access

Table 2 Aussie Optimism weekly lessons

Lesson	Social life skills	Optimistic thinking skills
1	Introduction and feelings	Awareness and identification of feelings
2	Decision-making	Awareness of self-talk
3	Communication skills	Linking thoughts and feelings
4	Assertiveness 1	Thinking styles
5	Assertiveness 2	Putting it together
6	Negotiation	Generating alternatives
7	Coping skills	Looking for evidence
8	Networks	Challenging unhelpful thoughts
9	Friends and families	Decatastrophising
10	Transition and review	Review and self-evaluation

further information with regard to any aspect of the Aussie Optimism Program or the project as a whole. Students who did not return a signed consent form were still eligible to participate in Aussie Optimism, but did not complete the screening measures.

Those who returned completed consent forms completed the Centre of Epidemiological Studies Depression scale (CES-DC) and the Strengths and Difficulties Questionnaire (SDQ) before participating in Aussie Optimism. Students were identifiable by name to the school, but researchers were provided with student identification numbers only to preserve anonymity. Time one data were analysed and children scoring in the clinical range of depression (a score of 31 and above on the CES-DC) or in the clinical range on the Total Difficulties scale of the SDQ (a score of 20 or above) were reported to the school by ID number. Each student was individually followed up and appropriate action taken depending on each individual case, to ensure each student was receiving help if necessary. The follow-up was not formally documented and varied according to the situation of each child. For example, some children received extra counselling from the Guidance Counsellor, while others were referred to the Queensland Child and Youth Mental Health Service (CYMHS). For those who were already receiving sufficient additional support, nothing was changed. Additional service use was not tracked, and once we had identified those at risk and referred them to appropriate sources, the responsibility lay with the school.

Following 20 weeks of Aussie Optimism, which was run over two or three terms depending on school timetabling, students again completed the CES-DC and the SDQ. Once again, children who scored in the clinical range on the CES-DC or the clinical range on the SDQ, Total Difficulties scale were identified and followed up appropriately with either referrals to the Guidance Counsellor or CYMHS.

The ethical aspects of this research project were approved by the Human Research Ethics Committee of the National Health and Medical Research Council of Australia. Approval was also given by the schools involved in the project.

Analysis

Scores on the CES-DC and SDQ were not normally distributed, so non-parametric tests were used to measure changes from time one to time two (Wilcoxin signed ranks test) and between genders and schools (Kruskal–Wallis test). Data were analysed using SPSS version 16.0.

Results

The majority of students scored in the normal range of the CES-DC at time one (70.71%) and two (72.70%). A small percentage was scored in the borderline range at time one and time two (both 21.73%), and a very small percentage was scored in the clinical range at time one (8.08%) and two (5.58%). For the SDQ, the majority of students scored in the normal range on Total Difficulties at time one (77.8%) and two (83.1%), a small percentage scored in the borderline range at time one (14.2%) and two (10.3%), and a very small percentage scored in the clinical range at time one (7.9%) and two (6.6%). There was a similar pattern for the SDQ subscales.

Hypothesis one, which was that for the sample overall, scores on the CES-DC and SDQ would decrease from time one to time two, was partially supported. For the student group as a whole, depression did not improve from time one to time two. However, statistically significant improvements from time one to time two were noted on the Total Difficulties scale of the SDQ ($Z = -4.706$, $p = .000$) and the Conduct Problems subscale of the SDQ ($Z = -8.559$, $p = .000$), with small ($r = -.19$) to medium ($r = .35$) effect sizes, respectively (Table 3).

Hypothesis two was that CES-DC and SDQ scores in the clinical range at time one would show significant improvement at time two. This hypothesis was supported. While depression significantly worsened for the normal group ($Z = -2.862$, $p = .004$, $r = -.18$), it significantly improved for the borderline ($Z = -4.380$, $p = .000$) and clinical ($Z = -3.321$, $p = .001$) groups, with large effect sizes for both the borderline and clinical groups ($r = -.50$ and $-.62$), respectively. In contrast, scores on Total Difficulties for *all three groups* significantly improved from time one to time two. The effect sizes for these changes were small for the normal group and large for the borderline and clinical groups (normal: $Z = -2.135$, $p = .033$, $r = -.14$; borderline: $Z = -3.518$, $p = .000$, $r = -.54$;

Table 3 Means, standard deviations, and significance levels for the Strengths and Difficulties Questionnaire (SDQ) and the Centre for Epidemiological Studies Depression Scale for Children (CES-DC) from time one to time two overall and by sex

	Time one			Time two		Z[b]	p	r[e]
	N	Mean	SD	Mean	SD			
All students								
SDQ Total Difficulties[a]	302	11.67	5.51	10.43	5.47	−4.706	.000[c]	−.19
SDQ Emotional Symptoms	302	3.07	2.29	2.86	2.25	−14.802	.072	−.60
SDQ Conduct Problems	302	2.91	1.87	1.94	1.71	−8.559	.000[c]	−.35
SDQ Hyperactivity	302	3.82	2.22	3.80	2.13	−.201	.841	−.01
SDQ Peer Problems	302	1.88	1.76	1.83	1.85	−.880	.379	−.04
SDQ Prosocial Behaviour	302	7.61	1.74	7.44	1.87	−1.666	.096	−.07
CESD	359	12.86	10.38	12.08	9.84	−1.631	.103	−.06
Males only								
SDQ Total Difficulties[a]	87	11.95	5.00	10.94	5.82	−1.879	.060	−.14
SDQ Emotional Symptoms	87	2.25	1.92	2.20	2.11	−.385	.700	−.03
SDQ Conduct Problems	87	3.92	1.53	2.54	1.96	−5.596	.000[c]	−.42
SDQ Hyperactivity	87	3.78	2.41	3.98	2.19	−.616	.538	−.05
SDQ Peer Problems	87	1.99	1.89	2.24	2.06	−1.133	.257	−.09
SDQ Prosocial Behaviour	87	7.04	1.73	6.37	1.89	−3.186	.001[c]	−.24
CESD	86	9.06	7.76	10.09	7.95	−1.167	.243	−.09
Females only								
SDQ Total Difficulties[a]	213	11.57	5.74	10.15	5.29	−4.680	.000[c]	−.23
SDQ Emotional Symptoms	213	3.40	2.36	3.13	2.27	−1.980	.048[d]	−.10
SDQ Conduct Problems	213	2.50	1.84	1.66	1.48	−6.663	.000[c]	−.32
SDQ Hyperactivity	213	3.83	2.15	3.72	2.09	−.836	.403	−.04
SDQ Peer Problems	213	1.83	1.72	1.65	1.73	−1.981	.048[d]	−.10
SDQ Prosocial Behaviour	213	7.86	1.68	7.89	1.69	−.320	.749	−.02
CESD	212	14.19	11.19	12.73	10.50	−2.320	.020[d]	−.11

[a] Total Difficulties is the sum of the Emotional Symptoms, Conduct Problems, Hyperactivity, and Peer Problems scales

[b] Calculated by running the Wilcoxin Signed Rank Test

[c] Significant at $p < .01$

[d] Significant at $p < .05$

[e] $r = \text{Effect size} = \frac{Z}{\sqrt[2]{(2 \times N)}}$

clinical: $Z = -3.880$, $p = .000$, $r = -.79$). Changes on the SDQ subscales showed a similar pattern to changes on the Total Difficulties scale: Emotional Symptoms did not change for the normal group but improved for the borderline ($Z = -3.262$, $p = .001$, $r = -.68$) and clinical ($Z = -3.271$, $p = .001$, $r = -.45$) groups; Conduct Problems improved for all three groups (normal: $Z = -3.593$, $p = .000$, $r = -.26$; borderline: $Z = -5.033$, $p = .000$, $r = -.74$; clinical: $Z = -5.970$, $p = .000$, $r = -.77$); Hyperactivity worsened for the normal group ($Z = -2.682$, $p = .007$, $r = -.17$), did not change for the borderline group, and improved for the clinical group ($Z = -4.795$, $p = .000$, $r = -.77$); Peer Problems did not change for the normal group but improved for the borderline ($Z = -2.010$, $p = .044$, $r = -.34$) and clinical ($Z = -2.730$, $p = .006$, $r = -.79$) groups; and Prosocial Behaviour worsened for the normal group ($Z = -3.433$, $p = .001$, $r = -.21$), improved for the borderline group ($Z = -3.145$, $p = .002$, $r = -.69$), and *neared* statistical improvement for the clinical group ($Z = -1.909$, $p = .056$, $r = -.45$; Table 4).

Hypothesis three, which was that females would show a greater improvement on depressive symptoms compared to males, was supported. There was a significant improvement on depression from time one to time two for females ($Z = -2.320$, $p = .020$), but not for males; the effect size for the improvement for females was small ($r = -.11$). That females, but not males, significantly improved on depression over time may be attributed to the significantly higher *initial* depression score for females ($M = 14.19$, $\mathrm{SD} = 11.19$) compared to males ($M = 9.06$, $\mathrm{SD} = 7.76$; $Z = -4.070$, $p = .000$, $r = -.24$). Females also showed more

Table 4 Means, standard deviations, and significance levels for the Strengths and Difficulties Questionnaire (SDQ) and the Centre for Epidemiological Studies Depression Scale for Children (CES-DC) from time one to time two by groups

	Time one			Time two		Z[b]	p	r[e]
	N	Mean	SD	Mean	SD			
Normal								
SDQ Total Difficulties[a]	235	9.42	3.53	8.86	4.19	−2.135	.033[c]	−.14
SDQ Emotional Symptoms	253	2.31	1.56	2.38	1.87	−.301	.763	−.02
SDQ Conduct Problems	196	1.80	1.12	1.47	1.48	−3.593	.000[d]	−.26
SDQ Hyperactivity	243	2.99	1.50	3.31	1.91	−2.682	.007[d]	−.17
SDQ Peer Problems	256	1.31	1.08	1.43	1.51	−.777	.437	−.05
SDQ Prosocial Behaviour	263	8.08	1.28	7.71	1.72	−3.433	.001[d]	−.21
CESD	252	7.36	4.08	8.97	6.62	−2.862	.004[d]	−.18
Borderline								
SDQ Total Difficulties[a]	43	17.26	1.07	14.14	5.63	−3.518	.000[d]	−.54
SDQ Emotional Symptoms	23	6.00	.00	4.09	2.19	−3.262	.001[d]	−.68
SDQ Conduct Problems	46	4.00	.03	2.13	1.50	−5.033	.000[d]	−.74
SDQ Hyperactivity	20	6.00	.00	5.50	1.73	−1.237	.216	−.28
SDQ Peer Problems	34	4.36	.49	3.76	1.83	−2.010	.044[c]	−.34
SDQ Prosocial Behaviour	21	5.00	.00	6.38	1.56	−3.145	.002[d]	−.69
CESD	78	21.12	4.03	15.85	9.44	−4.380	.000[d]	−.50
Clinical								
SDQ Total Difficulties[a]	24	23.68	2.84	19.08	5.09	−3.880	.000[d]	−.79
SDQ Emotional Symptoms	26	7.88	.91	6.54	1.99	−3.271	.001[d]	−.45
SDQ Conduct Problems	60	5.70	.79	3.32	1.80	−5.970	.000[d]	−.77
SDQ Hyperactivity	39	7.87	.98	6.00	1.81	−4.795	.000[d]	−.77
SDQ Peer Problems	12	7.10	1.00	4.83	2.29	−2.730	.006[d]	−.79
SDQ Prosocial Behaviour	18	3.74	.51	4.72	1.78	−1.909	.056	−.45
CESD	29	38.48	6.52	28.93	13.38	−3.321	.001[d]	−.62

[a] Total Difficulties is the sum of the Emotional Symptoms, Conduct Problems, Hyperactivity, and Peer Problems scales

[b] Calculated by running the Wilcoxin Signed Rank Test

[c] Significant at $p < .05$

[d] Significant at $p < .01$

[e] $r = \text{Effect size} = \frac{Z}{\sqrt[2]{(2 \times N)}}$

improvement on the SDQ from time one to time two compared to males. While the significant improvement on Total Difficulties for the *overall* group disappeared for males, it remained significant for females ($Z = -.4.680$, $p = .000$, $r = -.23$; for the males, the decrease on Total Difficulties neared significance; $Z = -1.879$, $p = .060$, $r = -.14$). This improvement was accounted for by significant improvement on the Emotional Symptoms ($Z = -1.980$, $p = .048$, $r = -.10$) and Peer Problems ($Z = -1.981$, $p = .048$, $r = -.10$) subscales of the SDQ for females only. Scores for males significantly worsened on Prosocial Behaviour ($Z = -3.186$, $p = .001$, $r = -.24$). Conduct Problems remained significantly improved for both sexes (males $Z = -5.596$, $p = .000$, $r = -.42$; females $Z = -6.663$, $p = .000$, $r = -.32$; Table 3).

Hypothesis four, which was that students from the Independent and Catholic schools would show greater improvement on depression and other emotional/behavioural difficulties compared to students from the Public school, was partially supported. While the mean depression score for the Catholic school decreased significantly from time one to time two ($Z = -2.999$, $p = .003$, $r = -.18$), and decreased for the Independent school (although not significantly), it significantly worsened for the Public school ($Z = -2.015$, $p = .044$, $r = -.16$). The SDQ Total Difficulties mean score significantly improved for the Catholic ($Z = -2.906$, $p = .004$, $r = -.18$) and Independent ($Z = -4.922$, $p = .000$, $r = -.38$) schools but not the Public school. Likewise, the Emotional Symptoms mean score significantly improved

Table 5 Means, standard deviations, and significance levels for the Strengths and Difficulties Questionnaire (SDQ) and the Centre for Epidemiological Studies Depression Scale for Children (CES-DC) from time one to time two by school type

	Time one			Time two		Z[b]	p	r[e]
	N	Mean	SD	Mean	SD			
Catholic								
SDQ Total Difficulties[a]	136	11.05	6.03	10.05	5.66	−2.906	.004[c]	−.18
SDQ Emotional Symptoms	136	3.57	2.40	3.23	2.19	−2.057	.040[d]	−.12
SDQ Conduct Problems	136	1.74	1.62	1.63	1.57	−1.194	.232	−.07
SDQ Hyperactivity	136	3.90	2.27	3.63	2.19	−1.684	.092	−.10
SDQ Peer Problems	136	1.84	1.79	1.57	1.81	−2.523	.012[d]	−.15
SDQ Prosocial Behaviour	136	7.96	1.63	8.05	6.99	−.744	.457	−.05
CESD	136	15.19	11.94	12.77	10.97	−2.999	.003[c]	−.18
Independent								
SDQ Total Difficulties[a]	84	12.24	4.82	9.86	5.04	−4.922	.000[c]	−.38
SDQ Emotional Symptoms	84	2.63	2.12	2.19	2.01	−2.025	.043[d]	−.16
SDQ Conduct Problems	84	3.84	1.42	1.93	1.71	−6.915	.000[c]	−.53
SDQ Hyperactivity	84	4.00	2.29	4.08	2.04	−.440	.660	−.03
SDQ Peer Problems	84	1.77	1.55	1.68	1.77	−.967	.334	−.07
SDQ Prosocial Behaviour	84	7.48	1.69	6.99	2.00	−2.220	.026[d]	−.17
CESD	141	11.39	8.47	10.67	8.56	−1.110	.267	−.07
Public								
SDQ Total Difficulties[a]	82	12.12	5.21	11.63	5.45	−.526	.599	−.04
SDQ Emotional Symptoms	82	2.69	2.14	2.95	2.45	−1.117	.264	−.09
SDQ Conduct Problems	82	3.89	1.54	2.46	1.81	−5.472	.000[c]	−.43
SDQ Hyperactivity	82	3.48	2.06	3.80	2.11	−1.204	.229	−.09
SDQ Peer Problems	82	2.06	1.92	2.41	1.87	−1.613	.107	−.13
SDQ Prosocial Behaviour	82	7.16	1.85	6.90	1.83	−1.296	.195	−.10
CESD	82	11.54	10.01	13.35	9.75	−2.015	.044[d]	−.16

[a] Total Difficulties is the sum of the Emotional Symptoms, Conduct Problems, Hyperactivity, and Peer Problems scales

[b] Calculated by running the Wilcoxin Signed Rank Test

[c] Significant at $p < .01$

[d] Significant at $p < .05$

[e] $r = \text{Effect size} = \frac{Z}{\sqrt[2]{(2 \times N)}}$

for the Catholic ($Z = -2.057$, $p = .040$, $r = -.12$) and Independent ($Z = -2.025$, $p = .043$, $r = -.16$) schools but not the Public school. In contrast to the hypothesis, Conduct Problems improved for the Independent ($Z = -6.915$, $p = .000$, $r = -.53$) and Public ($Z = -5.472$, $p = .000$, $r = -.43$) schools but not the Catholic school. This might be due to the significantly higher Conduct Problems score at time in the Catholic school compared to the Independent and Public schools ($\chi^2 = 102.619$, $p = .000$). Peer Problems significantly improved in the Catholic school only ($Z = -2.523$, $p = .012$, $r = -.15$); and Prosocial behaviour significantly worsened in the Independent school ($Z = -2.220$, $p = .026$, $r = -.17$) (Table 5).

Discussion

This study aimed to determine the effectiveness of Aussie Optimism among year eight students in Brisbane, Queensland. Aussie Optimism was designed to promote mental health and prevent anxiety and depression. Contrary to our hypothesis, as a group overall, scores on depression did not improve from time one to time two. However, there was an overall improvement on Total Difficulties, which was accounted for by an overall improvement on conduct problems. The effect size for this improvement was medium. The reason for the improvement on conduct problems at the exclusion of other problems is unclear. The Aussie Optimism Program was not designed to improve externalising problems, but rather internalising problems. The improvement may be an artefact of other changes throughout the school year, or it may have been mediated by improvement on anxiety, which was not measured in this study. There is evidence that improvement on internalising problems can lead to improvement on externalising problems (Levi, Hunt, & Heriot, 2007), and Aussie Optimism has previously shown to decrease risk taking behaviour (smoking, drinking. and illicit drug use) (Roberts et al., 2009).

As hypothesised, there was a greater improvement on depression and emotional/behavioural difficulties from time one to time two for students who scored in the clinical ranges at time one. This improvement was also seen among students who scored in the borderline ranges at time one, but not for those who scored in the normal ranges at time one. In fact, students who scored in the normal ranges on depression, hyperactivity, and prosocial behaviour at time one actually deteriorated over time. The reason for these results is unclear, but the effect sizes for these changes were generally small and so may not be clinically important. On the other hand, the effect sizes for the improvements on depression, emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behaviour for the borderline and clinical groups were generally large and therefore indicate clinical importance.

The above results suggest that the programme may be effective for students who are at risk of, or already experiencing, mental health problems, but not for students who are not experiencing mental health difficulties. Alternatively, the lack of improvement for ‘normal’ scoring students at time one might be due to floor effects, as the outcome measures used in the analysis do not detect improvements within the normal ranges; this phenomenon has been identified as a problem in other school-based mental health promotion programmes (Stewart-Brown, 2006). However, floor effects would not explain the significant deterioration on depression, hyperactivity, and prosocial behaviour for ‘normal’ scorers. Our results are consistent with previous studies which show that Aussie Optimism and PPP (the precursor to the programme) are more effective among children experiencing mental health problems compared to children with no mental health problems (Gillham et al., 1995; Quayle et al., 2001; Roberts et al., 2003; Roberts, Kane, Bishop, Matthews, et al., 2004).

As hypothesised, females improved significantly on depression but males did not. This supports previous PPP research (Gillham et al., 2006) as well as results from the Australian adaptation of PPP (Quayle et al., 2001). That females had a significantly higher depression score at time one compared to males may have contributed to their significant decrease on depression at time two, considering that there would have been more scope for improvement among females. However, the effect size for the improvement for females was small and so may not be clinically important. Unexpectedly, females also significantly improved on emotional symptoms and peer problems, whereas males did not. The improvement on emotional symptoms is consistent with females’ improvement on depression. The improvement on peer problems might indicate that the social life skills component of Aussie Optimism has a greater effect on females compared to males. It is unclear why prosocial behaviour deteriorated among males.

Compared to the Public school, the Independent and Catholic schools showed greater improvement from time one to time two on some scales, partially supporting the fourth hypothesis. On depression, both the Independent and Catholic schools improved, while the Public school deteriorated, although the improvement was only significant for the Catholic school. This difference might not have been due to the Catholic school system per se, but the fact that the Catholic school was an all-girls school, and our results, plus previous research, have shown that females are more likely to improve on depression compared to males. Similarly, Total Difficulties improved for both the Catholic and Independent schools, but not for the Public school. This improvement was largely due to improvement on emotional symptoms for the Catholic and Independent schools only. In contrast, conduct problems significantly improved for the Independent and Public schools but not the Catholic school. It is unlikely that the difference was due to sex differences between schools (where the Catholic school was an all-girls school and conduct problems are more prevalent among males compared to females), because for the females at the Independent and Public schools, as well as for females overall, conduct problems significantly improved. It is likely that females from the Catholic school were qualitatively different to those from the Independent and Public schools; this is supported by the significantly lower conduct problems score in the Catholic school compared to the Independent and Public schools at time one.

Overall, similar to findings from the implementation of other universal school-based programmes (Shochet et al., 2001; Spence et al., 2003), those who gained most benefit from Aussie Optimism were those students who began the programme with elevated scores on the CES-DC and SDQ. Further, none of the students who were classified in the ‘normal’ range on either measure moved into the clinical range, and a significant proportion moved from ‘clinical’ to ‘borderline’ on both measures. While this may be lauded as a positive result, it raises the question of how to measure the success of a universal programme in students who are deemed by their questionnaire results to be not at risk at time one. Measuring mental well-being, resilience and/or optimistic thinking may serve as a useful proxy measure for the effectiveness of this programme. Although, it is possible that the differences between schools was due to Aussie Optimism being delivered differently across schools, since treatment fidelity and adherence was not measured, this possibility cannot be explored. The changes over time between the schools might have been influenced by a number of factors, including the nature of difficulties at the schools initially, the education level of the teachers, or money spent on professional development.

Limitations

The most prominent limitation to this study was the lack of a control group. The improvement seen in depressive symptoms and other difficulties may have been due to normal maturation or other aspects of schooling. In fact, several students scoring in the clinical ranges on the CES-DC and/or SDQ at time one received extra support simultaneously with the Aussie Optimism Program. The improvement at time two may have been in part to these interventions and not to the Aussie Optimism Program. Evidence that the programme did make a difference is found in the improvement in scores for students who scored in the borderline level at the time one screening. These students were not given additional support. Since no follow-up was conducted (another limitation of the study), it is unknown whether the gains noted after the intervention were maintained.

Another limitation of the study lay in the selection of measurement tools. First, there was no measure of anxiety, despite the fact that the Aussie Optimism Program was designed to prevent depression *and* anxiety. This absence was because the screening measures were initially introduced for the identification of children at risk of depression and other emotional and behavioural difficulties, rather than to evaluate the effectiveness of the Aussie Optimism Program. Second, the measures which were used were limited because they were structured self-report questionnaires. The addition of parent and teacher reports and semi-structured interviewing may have produced more reliable data. Third, the participants were required to complete the questionnaires twice, before and after the intervention, which may have caused practice effects.

Lastly, it should be noted that treatment fidelity/integrity was not assessed. We do not know for sure whether schools delivered the programme in fundamentally different ways which might have altered outcomes. We also do not know whether the teachers delivered the programme as they were trained to do. Although all teachers attended 2 days of training in the programme and were required to follow the pre-determined outline for each class, it is impossible to know to what extent the programme was delivered with fidelity.

Conclusion

The results of this study partially support the effectiveness of the Aussie Optimism Program for year eight students in Queensland. It appears that the programme may be specifically beneficial for females with depressive symptoms and year eight students of both genders with general mental health problems. Support for the programme among students with no apparent mental health symptoms is less forthcoming. The use of a tool capable of detecting improvements in mental well-being, resilience and/or optimistic thinking among students with no apparent mental health symptoms would enable us to determine the effect of Aussie Optimism on this group, and is indicated for future research.

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Appendix Three: Suicide Prevention Programs for Indigenous Australians

PROGRAM	PROGRAM DESCRIPTION	PROGRAM OUTCOMES AND/OR EVALUATION
***Suicide Awareness for Aboriginal Communities* manual and workshop** (King, Appleby, & Brown, 1995)	The manual and the workshop are based upon the original Rose Education Suicide Awareness Training Manual (Appleby, King, & Johnson, 1992). The revision follows collaborative work conducted with Indigenous communities and suggestions made by Indigenous workshop participants. The program covers definition of suicide, misconceptions about Indigenous history, incidence of Indigenous suicide, myths and facts about suicide, risk factors and warning signs of suicide, understanding needs, intention, level of danger and distress of a suicidal person, helping and first aid for the suicidal person, helping those bereaved by suicide, understanding and helping high risk groups, and suicide prevention in communities.	The program was a part of the Shoalhaven Suicide Prevention Network (NSW) funded by the Federal Government. The program provided an educational week in the Shoalhaven area during which over 200 people were trained in suicide prevention skills. The program was evaluated 12 months later to estimate the number of people using the acquired skills and the manual, and to ascertain further needs of the community. The program was also conducted an evaluated in Yarrabah (Qld). There was positive feedback from workshop participants and encouraging long-term outcomes, incl. development of support services and resources in the community[22].
Yarrabah Men's Health Group (Yarrabah Men's Health Initiative) (Mitchell, 2005; Patterson, 2000)	In 1980s and 1990's the Yarrabah community (Qld) experienced a cluster of violent suicides by young men. These deaths prompted a number of local initiatives aimed at suicide prevention and strengthening the community, including the Yarrabah Men's Health Initiative. The program started in 1997 with an aim "to restore men's rightful role in the community using a holistic healing approach,	The key activities of the program include development of a strategy plan focusing on employment, education and training, tradition and culture, leadership and personal development, health services for men, weekly education meetings, bonding activities, hunting and fishing trips, organising referrals from the local magistrate courts, development of business initiatives for men, and support and

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[22] Personal communication from Margaret Appleby (July 2008).

Appendix Three: Suicide Prevention Programs for Indigenous Australians

PROGRAM	PROGRAM DESCRIPTION	PROGRAM OUTCOMES AND/OR EVALUATION
	encompassing in the program the spiritual, mental, physical, emotional and social aspects of life". Initially, the group was volunteer-based, but over the last decade it has succeeded in securing funds from the Australian Government (see Family Wellbeing Project below) and currently the program is based on a Participatory Action Research intervention model.	partnerships with local and international Indigenous groups. Positive and encouraging outcomes for the community[23] (also, see Family Wellbeing Project below).
Family Wellbeing Empowerment Program (Mitchell, 2005; Tsey et al. 2004a, 2004b, 2005, 2007)	The Family Wellbeing Program is a nationally recognised empowerment program for Indigenous Australians. The program was developed in 1993 in Adelaide by a group of "Stolen Generation" survivors. In Queensland, the program has been piloted at several sites including: Hopevale, Wujul Wujul and Yarrabah. The program, as adapted in north Queensland, is a two-step Participatory Action Research targeted broadly at parents and families. The program is based on the process of exploring issues in people's daily lives, recognising own strengths and resources, generating knowledge and taking action to improve own situation.	Evaluation of the Family Wellbeing Program is based on qualitative information collected from program participants. Findings to-date indicate that participation in the program can significantly enhance feelings of control and responsibility for the conditions affecting one's health and wellbeing. Participants report increased levels of resilience, self- worth and hope regarding the possibility of changing one's situation, as well as enhanced problem solving skills and ability to reflect on sources of problems.
Healing Our Way **self-help resource**	The project involved development of culturally appropriate, self-help resources for Indigenous	The outcome of the project is development and distribution of three high quality culturally

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[23] Personal communication from Mercy Baird (May 2008).

Appendix Three: Suicide Prevention Programs for Indigenous Australians

PROGRAM	PROGRAM DESCRIPTION	PROGRAM OUTCOMES AND/OR EVALUATION
(Mitchell, 2005)	people in Yarrabah (Qld). In 2005 two pamphlets and a DVD containing culturally adapted evidence-based content were developed to present user-friendly information on suicide prevention ("Self Harm") and postvention ("After a Suicide"). The resources provide information and advice for people who self-harm, their families, community, and people at risk of suicide who present to mental health services and a hospital.	appropriate self-help resources suiting the needs of the Yarrabah community. This outcome was achieved through close engagement with Indigenous partnerships and consumer participation.
Indigenous community suicide intervention forums **Indigenous Psychological Services[24]**	Indigenous Psychological Services (IPS) is a private company funded in 1999 in Western Australia. IPS is Indigenous specific and provides a range of specialist mental health services which are unique to the field and are based on substantial research and cultural validation. Indigenous specific suicide prevention forums started in 2002 with the aim of addressing the high rates of Indigenous suicide in rural and remote communities. The forums reflect a whole-of-community approach to intervention and are delivered to service providers, community members and Indigenous youth. The forums are delivered in a longitudinal manner over approximately 12 months, including an introductory phase, a	The program has been extensively evaluated, using structured questionnaires looking at participant suicide prevention knowledge and skills, and their readiness to help a person at risk. Quantitative analysis demonstrated significant gains in participants' self-reported levels of skill and knowledge.

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[24] http://www.indigenouspsychservices.com.au/ and personal communication from Dr Tracy Westerman (May 2008).

Appendix Three: Suicide Prevention Programs for Indigenous Australians

PROGRAM	PROGRAM DESCRIPTION	PROGRAM OUTCOMES AND/OR EVALUATION
	follow-up and a skills consolidation phase. The workshops are being run across Australia, including Queensland.	
***Toughin' it out. Survival skills for dealing with suicidal thoughts* pamphlet** (Bridge, Hanssens, & Santhanam, 2007)	The *Toughin' it out* pamphlet was created in 1998 in an Indigenous service setting to be handed out to service consumers or to be placed with other health promotion material. The publication uses simple and direct language to describe the process of suicidal thinking, ways of coping with crisis, and presents a list of available resources.	The pamphlet has been used in Indigenous health and youth services and schools in Cairns and Cape York area and Northern Territory. It was also used during Applied Suicide Intervention Skills Training/Suicide Awareness workshops. The pamphlet has been well received by counsellors, teachers and students.
National Health Interactive Technology Network (HITnet) Development Program[25] (Hunter, Travers, Gibson, & Campion, 2007)	The National HITnet Development Program is led by University of Queensland in Cairns and promotes health and wellbeing in disadvantaged populations through new media information. The Program began as a proof-of concept study of touch screen technology in two Indigenous health settings. It has subsequently expanded to a number of remote Indigenous communities and developed new platforms and applications to respond to emerging health issues.	This HITnet project shows that kiosk-based approaches are feasible in very remote and challenging environments and are used by community members.
Applied Suicide Intervention Skills Training (ASIST) **LivingWorks**[26]	ASIST is a 2-day interactive workshop in first aid for suicide. The workshop participants learn to recognise the signs of suicide risk and	Positive feedback from workshop participants in Indigenous communities in Queensland[27]. The program has been evaluated (Guttormsen,

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[25] http://www.hitnet.com.au/
[26] http://www.lifeline.org.au/learn_more/livingworks
[27] Personal communication from Joan Smith (June 2008)

Appendix Three: Suicide Prevention Programs for Indigenous Australians

PROGRAM	PROGRAM DESCRIPTION	PROGRAM OUTCOMES AND/OR EVALUATION
	respond in ways that increase safety and link people at risk with sources of professional help. The ASIST workshops have been conducted in Indigenous communities in Queensland and other parts of Australia, including Northern Territory.	Hoifodt, Silvola, & Burkeland, 2003; MacDonald, 1999; Tierney, 1994; Turley & Tanney, 1998).
Increasing the Capacity of Local Counsellors *"Drop the Rock"* Royal Flying Doctor Service of Australia (Qld)[28]	The program is based on engagement of local services to assist clients experiencing social and emotional wellbeing and mental health difficulties in the five Cape York Peninsula communities (Kowanyama, Pormpuraaw, Aurukun, Lockhart River and Coen). The project aims to enhance local and visiting social and emotional wellbeing (mental health) services by developing or increasing the capacity of local community counsellors to provide basic counselling, support and liaison between clients and visiting services. The community counsellor positions work with visiting mental health personnel engaged in community development initiatives addressing social and emotional wellbeing (mental health) issues by focusing on local strategies. The trainee community counsellors undertake a Certificate 4 in Mental Health (non-clinical) through the Far North Queensland TAFE - an	The program is ongoing.

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[28] Information obtained from Australian Government Department of Health and Ageing, Queensland State Office

Appendix Three: Suicide Prevention Programs for Indigenous Australians

PROGRAM	PROGRAM DESCRIPTION	PROGRAM OUTCOMES AND/OR EVALUATION
	additional subject has been incorporated into the course which looks at the impact of historical events upon current Aboriginal and Torres Strait Islander culture and communities.	
Learning from the experts: Building bridges to implement successful life promotion and suicide prevention expertise across Aboriginal communities **Centre for Rural and Remote Mental Health Queensland Ltd. in partnership with James Cook University, University of Southern Queensland, University of Queensland; AISRAP, Griffith University**[29]	A suicide prevention and education project targeting Aboriginal communities in Far North and South West Queensland involving five key projects: (1) establishing Men's support groups in Yarrabah, Hope Vale, Kowanyama, Dalby and Goondir, (2) delivery of the Family Wellbeing Program in Kowanyama, Hope Vale, Dalby and Yarrabah and Lotus Glen Correctional Facility, (3) collection, organisation and analysis of stories from Far North Qld communities and Dalby, (4) implementation of touch-screen kiosks in Hopevale, Dalby, and Lotus Glen and Cleveland Detention Centre and (5) collection, collation and communication of information on community health (injuries, suicides, mental health, alcohol, school attendance etc) in an empowering way.	The program is ongoing.
Something Better **Queensland Police-Citizens Youth Welfare Association**[30]	The project aims to assist and support young people in Aboriginal communities of Wujal Wujal, Napranum, Hope Vale and Mapoon (Qld) that are at risk of suicide by providing them	The program is ongoing.

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[29] Ibid.
[30] Ibid.

Appendix Three: Suicide Prevention Programs for Indigenous Australians

PROGRAM	PROGRAM DESCRIPTION	PROGRAM OUTCOMES AND/OR EVALUATION
	with exposure to sporting activities outside of their community by a suitably trained and dedicated local Indigenous person.	
Napranum Life Promotion **Queensland Police-Citizens Youth Welfare Association**[31]	The project aims to assist and support young people in the Aboriginal communities of Napranum, that are at risk of suicide by providing them with a range of programs including a Breakfast Program, Homework Program, Scouts Program, Parenting Program and a Resume Program - provision of materials and computer access to enable participants to complete resumes.	The program is ongoing.

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[31] Ibid.

Appendix Four. Training programs for Indigenous mental health workers and services developed specifically for Indigenous Australians.

PROGRAM	PROGRAM DESCRIPTION, OUTCOMES AND/OR EVALUATION
***Aboriginal Mental Health Worker Program*, NT** (Harris & Robinson, 2007)	In eight remote communities in the Top End of Northern Territory, *Aboriginal Mental Health Worker Program* was introduced to fund the placement of Aboriginal Mental Health Workers (AMHW) under the clinical leadership of General Practitioners in health centres in remote communities and to contribute to development of a culturally appropriate community-based mental health care service. The program evaluation provided mixed results: "while there are many examples in this program of AMHWs providing highly valued services within their communities, the evaluation showed that the program did not achieve clear commitments to develop mental health practice around the AMHWs' role. In addition there was variability in levels of local managerial support for the AMHWs, vulnerability to staff turnover and other discontinuities, as well as tensions in views about what the role of the AMHWs should be" (Harris & Robinson, 2007, p. 1).
Tiwi Island Mental Health Service, NT (Norris, Parker, Beaver, & van Konkelenberg, 2007)	An overview of services developed in response to the unique mental health needs of a remote Indigenous community on the Tiwi Islands in the Northern Territory presented a number of challenges faced by a community aiming to take a leading role in dealing with mental health issues. The experience of the local Mental Health Service showed that provision of the relevant information and support in decision-making process enabled members of the Tiwi Islands community to identify needs and respond accordingly. Norris et al. (2007) concluded that "the establishment of social governance mechanisms and the long-term commitment by a change agent to facilitate the empowerment process are important keys to success. The main challenge in establishing services in rural Aboriginal communities is to identify and support community strengths, including leaders and cultural practices" (p. 310).
Australian Integrated Mental Health Initiative Northern Territory Indigenous stream, NT (Nagel & Thompson, 2006)	A review of changes in mental health service delivery to Indigenous Australians in Top End Mental Health Services under the Australian Integrated Mental Health Initiative Northern Territory Indigenous stream (AIMHI NT) showed the importance of Indigenous of mental health workers in improving delivery of services, including better communication with Indigenous patients. The service audits revealed significant improvements in Indigenous inpatient care between

PROGRAM	PROGRAM DESCRIPTION, OUTCOMES AND/OR EVALUATION
	1995 and 2001 and lead to the conclusion that "Aboriginal mental health workers provide essential services as cross-cultural brokers in the setting of Aboriginal mental illness. The improvements in care found in this file audit coincide with the commencement of employment of Aboriginal mental health workers in the inpatient unit. The AIMHI consultation reveals broad support for employment of more Aboriginal mental health workers in the Top End" (Nagel & Thompson, 2006; p. 291).
Maga Barndi Unit, WA (Laugharne, Glennen, & Austin, 2002)	In Western Australia, a two-year pilot project of delivery of culturally sensitive psychiatric services (Maga Barndi Unit) resulted in a marked increase in service utilisation by local Aboriginal people. Over the project period, the Unit was able to establish a significant local patient base and the majority of the Indigenous patients had not previously accessed mainstream mental health services. The success of the project was related to its location within an Indigenous controlled health centre with good access to Indigenous health workers, as well as a flexible assertive community management approach. According to Laugharne et al. (2002), "it is particularly encouraging that the total number of admissions of Aboriginal people with psychiatric diagnoses to Geraldton Regional Hospital was reduced by 58% in the second year of the project. In addition, we believe that through assertive community follow-up we prevented several patients with serious mental illness having to be transferred to the nearest available "gazetted" beds in Perth and all the associated problems that go with such a procedure" (p. 16).
Aboriginal and Torres Strait Islander Child and Adolescent Mental Health Traineeship Program, NSW (Bartik, Dixon, & Dart, 2007)	The Aboriginal and Torres Strait Islander Child and Adolescent Mental Health Traineeship Program was established in New South Wales in collaboration between Hunter New England Area Health Service (HNEAHS), Hunter New England Aboriginal Mental Health (HNEAMH) and the Department of Psychological Medicine at the Children's Hospital at Westmead (CHW) with guidance and input from additional collaborators. The program encompasses employment of a child and adolescent mental health worker under professional support and supervision of HNEAHS, a mentoring program provided through HNEAMH, a clinical education and supervision program conducted through the Department of Psychological Medicine, CHW, and formal academic studies in Aboriginal Mental Health. The initial feedback has been positive and shows the program is a promising venue for training of Aboriginal and Torres Strait Islander child and adolescent mental health workers.

PROGRAM	PROGRAM DESCRIPTION, OUTCOMES AND/OR EVALUATION
Djirruwang Aboriginal and Torres Strait Islander Mental Health Program, NSW (Brideson & Kanowski, 2004)	Te Djirruwang Aboriginal and Torres Strait Islander Mental Health Program delivers a three-year Bachelor of Health Science (Mental Health) Degree with exit points at Degree, Diploma and Certificate levels. The Program commenced in November 1993 and is restricted to Aboriginal and Torres Strait Islander people. Since its commencement, the program has contributed significantly to the development of Indigenous mental health workforce. By 2004, 70 students graduated from the course (34 with degrees, 35 with diplomas and one with a University Certificate) and 46 students from across Australia were taking the course in that year. In the conclusion of their presentation of the course, Brideson and Kanowski (2004) stressed that "professionals, their organisations and management groups in the mental health field need to learn to work with Aboriginal people and not to continue to work on them. They are definitely not seeking permission on these issues – they are seeking support to enable them to move into 'adulthood' as qualified professionals within the systematic arrangements of the mental health industry. The question that management, services, professions and their educational systems need to ask themselves is, are they doing all they can to alleviate the emotional distress facing your Aboriginal colleagues and communities?" (p. 7).

Appendix Five: Ethical Guidelines for Research in Aboriginal Australian Communities

This Appendix presents ethical guidelines for research in Aboriginal communities which are also applicable to development and implementation of suicide prevention and social and emotional wellbeing programs.

Principles of ethical research in Indigenous Studies (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2000)

A. Consultation, negotiation and mutual understanding

1. Consultation, negotiation and free informed consent are the foundations for research with or about Indigenous peoples.

Researchers must accept a degree of Indigenous community input into and control of research process. It also recognises the obligation on researchers to give something back to community.

It is ethical practice in any research on Indigenous issues to include consultation with those who may be directly affected by the research or research outcomes whether or not the research involves fieldwork.

2. The responsibility for consultation and negotiation is ongoing.

Consultation and negotiation is a continuous two-way process. Ongoing consultation in necessary to ensure free and informed consent for the proposed research, and of maintaining that consent.

Research projects should be staged to allow continuing opportunities for consideration of the research by the community.

3. Consultation and negotiation should achieve mutual understanding bout the proposed research.

Consultation involves an honest exchange of information about aims, methods, and potential outcomes (for all parties). Consultation should not be considered as merely an opportunity for researchers to tell the community what they, the researchers, may want.

Being properly and fully informed about he aims and methods of a research project, its implications and potential outcomes, allows groups to decide for themselves whether to oppose or to embrace the project.

B. Respect, recognition and involvement

4. Indigenous knowledge systems and processes must be respected.

Acknowledging and respecting Indigenous knowledge systems and processes is not only a matter of courtesy but also recognition that such knowledge can make a significant contribution to the research process.

Researchers must respect the cultural property rights of Indigenous peoples in relation to knowledge, ideas, cultural expressions and cultural materials.

5. There must be recognition of the diversity and uniqueness of peoples as well as of individuals.

Research in Indigenous studies must show an apperception of the diversity of Indigenous peoples, who have different languages, cultures, *histories and perspectives.*

It is also important to recognise the diversity of individuals and groups within those communities.

6. The intellectual and cultural property rights of Indigenous peoples must be respected and preserved.

Indigenous cultural and intellectual property rights are part of the heritage that exists in the cultural practices, resources and knowledge systems of Indigenous peoples, and that are passed on by them in expressing their cultural identity.

Indigenous intellectual property is not static and extends to things that may be created based on that heritage.

It is a fundamental principle of research to acknowledge the sources of information and those who have contributed to the research.

7. Indigenous researchers, individuals and communities should be involved in research as collaborators.

Indigenous communities and individuals have a right to be involved in any research project focussed upon them and their culture.

Participants have the right to withdraw from the project at any time.

Research on Indigenous issues should also incorporate Indigenous perspectives and this is often effectively achieved by facilitating more direct involvement in the research.

C. Benefits, outcomes and agreement

8. The use of, and access to, research results should be agreed.

Indigenous peoples make a significant contribution to research by providing knowledge, resources or access to data. That contribution should be acknowledged by providing access to research results and negotiating rights in the research at an early stage.

The community's expectations, the planned outcomes, and access to research results should be in agreement.

9. A researched community should benefit from, and not be disadvantaged by, the research project.

Research in Indigenous studies should benefit Indigenous peoples at a local level, and more generally.

A reciprocal benefit should accrue for their allowing researchers often intimate access to their personal and community knowledge.

10. The negotiation of outcomes should include results specific to the needs of the researched community.

Among the tangible benefits that a community should be able to expect from a research project is the provision of research results in a form that is useful and accessible.

11. Negotiation should result in a formal agreement for the conduct of a research project, based on good faith and free and informed consent.

The aim of the negotiation process is to come to a clear understanding, which results in a formal agreement (preferably written), about research intentions, methods and potential results.

The establishment of agreements and protocols between Indigenous peoples and researchers is an important development in Indigenous studies.

Good faith negations are those that have involved a full and frank disclosure of all available information and that were entered into with honest view to reaching an agreement.

Free and informed consent means that agreement must be obtained free of duress or pressure and fully cognisant of the details, and risks of the proposed research. Informed consent of the people as a group, as well as individuals within that group, is important.

Values relevant to health research ethics (National Health and Medical Research Council, 2003; 20005).

1. *Reciprocity:* A mutual obligation exists among members of the ATSI families and communities to achieve an equitable distribution of resources, responsibility and capacity and to achieve cohesion and survival of the social order. This mutual obligation extends to the land, animals and other natural elements and features. In contemporary settings the value of reciprocity continues in various forms, and may vary between locations. Examples include redistribution of income, benefits from the air, land and sea, and the sharing of other resources, such as housing.

   Inclusion: Inclusion, the basis for mutual obligation, describes the degree of equitable and respectful engagement with ATSI peoples, their values and cultures in the proposed research.

   Benefit: Benefit in this context describes the establishment or enhancement of capacities, opportunities or outcomes that advance the interests of the ATSI peoples and that are valued by them.

2. *Respect*: Respect for human dignity and worth as a characteristic of relationships between people, and in the way individuals behave, is fundamental to a functioning and moral society. Within ATSI cultures respect is reinforced by and in turn strengthens dignity. A respectful relationship induces trust and co-operation. Strong culture is a personal and collective framework built on respect and trust that promotes dignity and recognition.

   Respect of people and their contribution: Respect acknowledges the individual and collective contribution, interests and aspirations of the ATSI peoples, researchers and other partners in the research process.

   Minimising difference blindness: Respectful research relationships acknowledge and affirm the rights of people to have different values, norms and aspirations. Those involved in research should recognise and minimise the effect of difference blindness through all stages of the research process.

   Consequences of research: Researchers need to understand that research has consequences for themselves and others, the importance of which might not be immediately apparent. This should be taken into account through all stages of the research process.

3. *Equality*: One of the values expressed by the ATSI peoples and cultures is the equal value of people. One of the ways it is reflected is a commitment to distributive fairness and justice. Equality affirms ATSI people's right to be different.

   Valuing knowledge and wisdom: ATSI peoples value their collective memory and shared experience as a resource and inheritance. Researchers who fail to appreciate or ignore ATSI people's knowledge and wisdom may misinterpret data or meaning, may create mistrust, otherwise limit quality or may overlook a potentially important benefit of research.

   Equality of partners: Ethical research processes treat all participants as equal notwithstanding that they may be different. In the absence of equal treatment, trust among researcher funders, researchers, host institutions, ATSI communities and other stakeholders is not possible. Without such trust ethical research is undermined.

   The distribution of benefit: The distribution of benefit stands as a fundamental test of equality. If the research process delivers benefit in greater proportion to one partner in the initiative than other partners, the distribution of benefit may be seen as unequal.

4. *Responsibility*: Central to ATSI societies and cultures is the recognition of core responsibilities. These responsibilities include these to the country, kinship bonds, caring of others and the maintenance of harmony and balance within and between the physical and spiritual realms. A key responsibility within this framework is to do no harm, including avoiding having an adverse impact on others' abilities to comply with their responsibilities. As well, one person's responsibilities may be shared with others so that they will also be held accountable. *Doing no harm: There is a clear responsibility for researchers to do no harm to ATSI individuals and communities and also to those things that they value.* *Accountability: Researchers and participating communities need to establish processes to ensure researchers' accountability to individuals, families, and communities, particularly in relation to the cultural ad social dimensions of ATSI life.*
5. *Survival and protection*: ATSI peoples continue to act o protect their cultures and identity from erosion by colonisation and marginalisation. A particular feature of ATSI cultures and their efforts has been the importance of a collective identity. This collective bond reflects and draws strength from the values base of the ATSI peoples and cultures. *Importance of values based solidarity to ATSI peoples: ATSI vigorously oppose the assimilation, integration or subjugation of their values and will defend them against perceived or actual encroachment. Researchers must be aware of the history and the continuing potential for research to encroach ion these values.* *Respect for social cohesion: The importance of the personal and collective bond within ATSI communities and its critical function in their social lives.* *Commitment to cultural distinctiveness: The cultural distinctiveness of ATSI peoples is highly valued by them. Within the scope if these guidelines, researchers must find ways of working that d not diminish the right to the assertion or enjoyment of that distinctiveness.*
6. *Spirit and integrity*: This is an overarching value that binds all others into a coherent whole. It has two components. The first about the continuity between past, current and future generations. The second is about behaviour, which maintains the coherence of ATSI values and cultures. Any behaviour that diminishes any of the previous five values could not be described as having integrity. *Motivation and action: This means that researchers must approach the conduct of the research in ATSI communities with respect for the richness and integrity of the cultural inheritance of past, current and future generations, and of the links which bind the generations together.* *Intent and process: Negotiations with ATSI communities will need to exhibit credibility in intent and process. In many circumstances this will depend not only on being able to demonstrate that the proposal is in keeping with these guidelines, but also on the behaviours and perceived integrity of the proponents of research.*

Identity, Voice, Place

Suicide Prevention for Indigenous Australians - a Social and Emotional Wellbeing Approach

Krysinska, K., Martin, G. and Sheehan, N.
The University of Queensland

"The Mental Health of a Nation is judged by the care with which those most in need are assisted to regain control of their own lives"

This work is based on a redraft of a commission from
The Centre for Rural and Remote Mental Health Queensland.

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Introduction

The *National Mental Health Plan 2003-2008* recognises that influences on mental health and social and emotional wellbeing occur in the events and settings of everyday life. The complex interplay of biological, psychological, social, environmental and economic factors at the individual, family, community, national levels must be acknowledged and addressed if we are to effectively promote and support population-based approaches to social emotional, cultural and spiritual wellbeing. For Aboriginal and Torres Strait Islander people, the concept of health and wellbeing is inextricably linked to a holistic understanding of life itself.
This broader understanding of health is outlined in *Ways Forward*:

> *Aboriginal concept of health is holistic, encompassing mental health and physical, cultural and spiritual health...This holistic concept does not merely refer to the 'whole body' but is in fact steeped in the harmonised interrelations which constitute cultural wellbeing.*

The *National Strategic Framework for Aboriginal and Torres Strait Islander People's Mental Health and Social and Emotional Wellbeing 2004-2009* reaffirms and expands upon the concept of health as multi-dimensional and recognises the strengths, resilience and diversity of Aboriginal and Torres Strait Islander communities. This is supported by the *Cultural Respect Framework for Aboriginal and Torres Strait Islander Health 2004-2009* which states that recognition of cultural differences is essential if we are to deliver services to Aboriginal and Torres Strait Islander people that do not compromise their legitimate cultural rights, practices, values and expectations.

The determinants of Aboriginal and Torres Strait Islander social, emotional, cultural and spiritual wellbeing are complex and reflect factors acting across the developmental continuum at individual, family community and societal levels. Suicide in Indigenous Australians is an equally complex issue, and a relatively new phenomenon. It occurs in communities across Australia in a sporadic way and is difficult to predict at both the individual and community levels. As with other Indigenous societies across the world, it appears that many of the approaches emerging from western research programs and incorporated into programs designed to prevent suicide, either do not work for Indigenous Australians, or are inappropriate when translated to Indigenous Australian communities.

This research reviewed all of the available research, literature, and relevant available unpublished materials across a range of fields in an attempt to find solutions that might work for Aboriginal and Torres Strait Islander communities. We also discussed the issues and took advice from a large number of key informants both in Australia, but also in New Zealand, Canada and the United States. The intent was to devise a framework for Indigenous suicide prevention in Australia that might be relevant, acceptable, fundable, manageable, and successful. As with many before us, we concluded that social, cultural, emotional, and spiritual wellbeing as building blocks toward overall mental wellbeing are likely to be crucial in reducing suicide in Indigenous Australians, and that social reform to help rediscover Identity, Voice and Place, is likely to be more important than measures taken to improve pathways to care.

Executive Summary

1. This literature review is based on 9 Key Principles (see page **Error! Bookmark not defined.**), consistent with existing Australian and International declarations, frameworks, policy, plans and strategies (see page **Error! Bookmark not defined.**).
2. There is considerable rhetoric in the area of suicide prevention for Indigenous Australians, but very little in the way of local evidence-based practice or practice-based evidence to drive interventions.
3. Our recommendations derive from the best available evidence (both national and international) in promotion of social and emotional wellbeing, and prevention of suicide through early intervention in social, family, personal and biological determinants along the trajectory to suicide. Recommendations will need considerable goodwill and commitment to ensure translation into culturally meaningful practice in diverse communities.
4. The estimated resident number of Indigenous Australians (June 2006) is 517,200 including 463,900 Aboriginal Australians, 33,100 Torres Strait Islander Australians and 20,200 people identifying as both Aboriginal and Torres Strait Islander, altogether comprising 2.5% of the total population (ABS&AIHW, 2008).
5. Best available data indicate that overall mortality rates among Indigenous males and females are almost three times higher than for non-Indigenous Australians, and there is a 17-year gap between life expectancy at birth for Indigenous and non-Indigenous males and females (59 v 77 yrs and 65 v 82 yrs respectively) (ABS&AIHW, 2008).
6. Among Indigenous Australian males, overall suicide rates are almost three times higher than suicide rates for non-Indigenous Australian males, with biggest differences in younger ages (ABS&AIHW, 2008). Suicide rates among Indigenous Australian females aged 10-24 are five times the rate of other Australian females, although in age groups 45-54 and over, suicide rates are similar or lower compared to rates for non-Indigenous Australian females.
7. In 2000-02 suicide rates in Aboriginal and Torres Strait Islander Australians were highest in remote areas of Australia (55 per 100,000), lower in inner and

outer regional areas (37 per 100,000 and 35 per 100,000; respectively) and lowest in major cities (16 per 100,000). Highest suicide rates were found in DOGIT communities (68 per 100,000) - twice the overall Indigenous Australian rate (30 per 100,000). Suicide rates are lower in Torres Strait Islander Australians (18 per 100,000) (Partnerships Queensland, 2006).

8. Of serious concern is the high and increasing rate of suicide among Indigenous Australian children and adolescents (Commission for Children and Young People and Child Guardian Queensland, 2007). In 2006-07, Aboriginal and Torres Strait Islander Australian children and adolescents accounted for 39% youth suicide victims in Queensland, despite comprising only 6% of the youth population.
9. The situation of Indigenous Australians looks grim even by comparison to other Indigenous populations (Freemantle et al., 2007), and not much has changed since 1995 when Ring observed that "expectations for life for Indian populations in Canada and the United States, and for the Maoris in New Zealand are at least 10 years more than for Australian Aborigines, an enormous difference" (Ring, 1995; p. 228).
10. According to Kunitz (1994), the particularly bad mortality and morbidity status of Aboriginal Australians can be traced back to two factors concerning how governments have dealt with Native peoples across history: signing of treaties and the level of responsibility for Indigenous affairs (see page 36 onwards).
11. Average expenditure on health for Aboriginal and Torres Strait Islander Australians is $4,718 per capita, approximately 17% higher than for other Australians ($4,019). However, this level of expenditure is not sufficient to match the needs related to higher levels of morbidity (ABS&AIHW, 2008), nor the cost of delivery particularly to rural and remote communities.
12. In our review of relevant policies and strategies, some include special cultural considerations for Indigenous Australians, others provide direction, targets and strategies for all Australians. Our view is that considerable affirmative action is required to enable Indigenous Australians to reach equity with all other Australians. In particular, affirmative action is necessary in the areas addressed, for instance, under Outcome 6 of the Queensland Government Suicide Prevention Strategy (2003-2008), the first 3 dot points of which state:

- Engage Indigenous communities in identifying the cultural, historical and spiritual factors which may influence suicide and suicidal behaviour;
- Promote approaches to enhance self-esteem and capacity to enable individuals and communities to connect with a value system based on identity, place, people and land;
- Develop partnership approaches with communities to strengthen local responses to complex issues, including drug and alcohol use, interpersonal conflict, violence, and grief and loss[1].

It appears from our discussions with key informants that there is still a long way to go to achieve any of this.

13. We note with some dismay in our summation of the Australian literature on Indigenous Australian suicide (page 41 onwards), our inability "at this time, to identify empirical studies which could provide further evidence or a theoretical framework to explain the protective impact of these factors and their application to social and emotional wellbeing of Aboriginal and Torres Strait Islander Australians". A case can be made that when we develop protective programs against suicide for Indigenous Australians, at this time we are using a mix of guesswork, a literature replete with rhetoric, and translations from International literature. We acknowledge there are a number of community driven Aboriginal Australian programs which appear to be effective, but for which a culturally relevant research base still needs to be confirmed.
14. Despite obvious and significant cultural, socio-economic and historical differences between and within Indigenous populations in New Zealand, Canada and the United States, in general, suicide rates and suicide risk are highest among young Indigenous males; the age of Indigenous suicide deaths is decreasing; suicides tend to cluster, and a significant role is played by alcohol in suicidal behaviour. Indigenous suicides appear to have their roots in 'collective despair', related to persisting social disadvantage, cultural and social exclusion and destruction of cultural continuity and identity. Clearly these core themes must inform our understanding, as well as preventive practice in Australia.
15. The majority of international suicide prevention programs in Indigenous communities are either not well evaluated or are not reported in the published

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[1] Each of these are known to be distal risk factors in the life trajectory to suicide

literature. A 2001 review, in the United States, identified 9 programs, including 5 suicide-specific programs, and 4 programs addressing related mental health and wellbeing issues, such as alcohol and substance abuse, and teen pregnancy. There were disappointing conclusions: “information on the effectiveness of suicide preventive intervention programs among American Indians/Alaskan Native communities is scarce…. generalizability of the results is somewhat limited” (Middlebrook et al., 2001; p. 140). A more recently published report *Suicide among Aboriginal People in Canada* (Kirmayer et al., 2007) presents a more comprehensive and updated list of promising suicide prevention programs with a focus on Aboriginal Canadian communities (see page 47 onwards).

16. In searching for solutions to suicide in Indigenous Australians, it is better to build on existing initiatives like those in Appendix Two, rather than wipe the slate clean and pretend that the international literature that does exist has some magic formula that can be transposed to the Australian environment.
17. Despite wide recognition and acknowledgment of the importance of Indigenous holistic concepts of self, health, and social and emotional wellbeing, there is a lack of consensus regarding its operationalisation and measurement (Kowal et al., 2007). In addition, to date, there is a paucity of studies and program evaluations across Australia to indicate which initiatives and frameworks are effective in development of social and emotional wellbeing in Indigenous Australians.
18. There is clearly an urgent need for increased training of Indigenous Australians at all levels of the Mental Health workforce to ensure a critical mass of workers steeped in local culture and acceptable to local communities. We recommend the recently published National Aboriginal and Torres Strait Islander Health Council document ‘A blueprint for action: Pathways into the health workforce for Aboriginal and Torres Strait Islander people’ which is relevant here (Commonwealth of Australia, 2008).

Recommendations for Action and Investment in Suicide Prevention for Indigenous Australians, based on a social and emotional wellbeing framework

To provide consistency with other current Australian and Frameworks and Strategies, we have chosen to use the Mrazek and Haggerty (1994) Spectrum for Intervention focusing mainly on Universal, Selective and Indicated areas; those areas most consistent with a Population Health perspective on prevention.

Universal approaches

1. *Toward equal opportunity*

It is noticeable that many national and state documents refer to Aboriginal and Torres Strait Islander "peoples". On the one hand, this may properly identify people at higher health risk than non-Indigenous Australians, but on the other hand may divide Aboriginal and Torres Strait Islander Australians from other Australians and either create, or enhance possibilities for, stigmatisation. We recommend the universal adoption in Government publications of the terms 'Indigenous Australians', 'Aboriginal Australians', 'Torres Strait Island Australians', or 'Aboriginal and Torres Strait Island Australians' (where appropriate[2]) to underscore the fact that the original owners of our land are citizens of Australia[3], and therefore entitled to levels of health and social and emotional wellbeing applicable to all Australians.

2. *Consensus and agreement on Recommendations for Action and Investment*

To move toward a unified understanding of Indigenous Australian suicide, to gain commitment to the Recommendations, and agreement on where Investment may be targeted, a convocation (or 'yarning') process will need to be funded at different community levels:

- All identified Indigenous Australian groups and committees within Government and the bureaucracy, with Commonwealth representative committees and groups who work with and for Indigenous Australians;

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[2] In all subsequent text we use the term 'Indigenous Australians' unless we seek to be more specific; we mean no disrespect to anyone. Simply stated, we sought to reduce the number of words and make the text as readable as possible. Where we quote from others who have used alternative terms, we retain their terminology.

[3] Arabena (2006) has taken the debate around this issue much further in her model of a 'Universal Citizen'.

- Elders and/or broad senior representation from all recognisable communities and groupings of Indigenous Australians. The venue or venues for this part of the convocation process will have to be carefully considered to maximise commitment from relevant parties, and there be a need for a series of meetings to confirm agreement. The methods by which information is shared between member groups must also be given serious consideration;
- Representatives of those professions relevant to development of social and emotional wellbeing and/or suicide prevention, and already involved in Indigenous Australian communities, as well as representatives from all government and all non-government organizations managing or developing relevant health or welfare programs.

Proposed Outcomes:

1. Indigenous Australian commitment to the Recommendations
2. General agreement on where investment may be targeted
3. General agreement on what constitutes Aboriginal Australian Resilience
4. General agreement on an approach towards Suicide Prevention based on Social and Emotional Wellbeing
5. General agreement on the specific steps to be taken.

3. *Training for the Indigenous Australian Mental Health Workforce*

There remain large disparities between Indigenous communities in terms of a trained mental health workforce with the capacity to contribute locally to both building social and emotional wellbeing, creating knowledge about signs of mental health problems and suicide potential, and providing crisis care or access to care in their own community. Attempts to build local capacity seem to be haphazard, and one community often does not know what is happening elsewhere or what the possibilities are for training. In fact many key informants were able to describe a local program, but did not know of programs being developed elsewhere. There is a need for a critical mass of workers steeped in, and situated in, local culture, and acceptable to local communities. We recommend:

- Engagement of relevant workforce planning groups to review how to increase of Indigenous Australians numbers at all levels of the Mental Health workforce, and
- That, as a priority, training programs become better coordinated across Australia.
- Increased funding be provided to existing training programs to allow them to fill known gaps and enhance the capacity of all communities to sustain mental health and/or suicide prevention programs – whether these are about cultural, social and emotional wellbeing or about greater awareness of mental health issues, and pathways to care.
- Development of funding formulae [for workforce needs] based on population needs <u>weighted</u> for Aboriginal and Torres Strait Islander populations, rural and remote locations and other relevant variables (*Key Direction 30.2, Australian Mental Health Plan)*.

Proposed Outcomes:

1. Sufficient Indigenous professional capacity to
   1.1. sustain development and implementation of programs toward Social and Emotional Wellbeing at the local level;
   1.2. coordinate local training in Mental Health First Aid, ASIST, Drop the Rock and other relevant programs where evaluation shows them to be effective;
   1.3. provide relevant crisis management at the local level for suicidal people.
2. Sufficient local awareness of mental health systems and how these are accessed.

4. Mapping of Services

Based on our research and discussions with key informants, there remains a need for careful mapping of suicide prevention and Social and Emotional Wellbeing development programs in communities to clarify who funds what for whom, in which communities, who coordinates the programs, and where capacity needs to be enhanced? This is a crucial exercise to prioritise values, clarify duplication, and identify gaps where additional funding might be appropriate and lead to solid outcomes. We recommend funding of a taskforce with capacity to dialogue with Indigenous Australian communities and groupings to discover what programs exist and where, how they are funded, how coordinated, and where there is capacity to provide apparently successful programs in a culturally appropriate way to other communities.

Proposed Outcome:

> A sufficient range of programs for each and every local community to enable development of Social and Emotional Wellbeing, and the prevention of suicide.

5. Research

As we noted in the Executive Summary, a case can be made that when we develop protective programs against suicide for Indigenous Australians, at this time we are using a mix of guesswork, a literature replete with rhetoric, and translations from International literature that may not provide best practice based on a sound evidence base about Indigenous Australians. Our review demonstrates a clear need to contribute to improved knowledge about which programs work in which communities, under what culturally appropriate circumstances, with what initial resource development, and with what ongoing funding to maintain community capacity to sustain programs and their evolution at the local level.

We recommend provision of dedicated funding to a representative (Indigenous and non-Indigenous Australian) expert group to explore and advise state wide and local programs on culturally cogent and appropriate ways of working with communities to evaluate programs, and more formally contribute to the specific knowledge base in Australia of what reduces suicide and its precursors in Indigenous Australians and in their communities.

Further, we recommend funding a culturally appropriate program of research which pairs Indigenous and non-Indigenous researchers to gain the best available evidence in the areas of promotion, prevention and early intervention, specifically to drive relevant and culturally situated and appropriate programs of prevention. This might include:

5.1 A review of potential impact of disturbances (e.g. incarceration) in the Indigenous Australian family functioning and parenting skill to clarify whether a program of improvement is needed, and how such a program could be developed and implemented in a culturally appropriate manner.

5.2 In discussion with relevant Indigenous organisations, development of a number of trial programs in the area of improving Social and Emotional Wellbeing, to determine what impact this has on grief and loss issues, suicide, substance misuse, family violence, and child abuse. While increased funding to Aboriginal Controlled Community Health Services may be an important direction to take, (see Action Area 4.1.2, *National Strategic Framework for Aboriginal and Torres Strait Islander People's Mental Health and Social and Emotional Well Being 2004-2009*), it is at this point in our narrative unclear just which programs would provide the most benefit. Clearly such trial programs would need to observe the criteria we have provided for ethical practice in this area, and would gain from discussions with an expert group on culturally appropriate evaluation if we are to contribute to the accepted knowledge base in Australia.

5.3 Little research exists into trajectories to suicide in Indigenous Australians, particularly in younger suicides. We do have some information from psychological autopsy of recent young suicides in Queensland, as well as specific surveys from Western Australia. There is an urgent need for a program of culturally sensitive research to determine the pathways to suicide in young Indigenous Australians, specifically to determine risk factors for suicide, protective factors against suicide, and key proximal indicators, which might lead to evidence based programs of prevention and intervention. Further to improved clarity about pathways, funding could be allocated to salutogenic programs in schools, or other youth-focussed programs targeting culturally appropriate changes in the pathways.

Proposed Outcome:

Clarification of specific points along the trajectory to suicide in young people, where targeted funding might have some impact in reducing youth suicide rates in Indigenous young Australians.

5.4 There remains a need to examine how methodologies which might be inherent in knowledge systems (Emic) can be developed to, as it were, 'hear the system speak', or allow the system to look at who they are. There is urgent need for work to define how traditional forms of Emic knowledge can be translated in a culturally acceptable manner, but also made available in a format that would be acceptable to 'western' science. If this could be achieved, it would be a valuable outcome in its own right, but would also assist the process of ongoing funding from relevant national and state bodies.

Proposed Outcome:

Knowledge remains owned by communities, but an acceptable framework for translation allows publication in national or international journals, which can turn the rhetoric into the reality of funded, cogent and locally acceptable programs based, not on opinion, but on evidence based practice as it is understood around the world.

Selective approaches

As previously noted, arguments can be mounted that discount Selective Prevention as being in the area of population health strategy, or suggest it is the domain of state or local health services. However, every Indigenous community can be said to be a group at increased risk for suicide because of the history of Indigenous communities. Even small communities can be considered for population-style universal strategies. We argue that both Selective Prevention and Indicated Prevention demand a sufficient level of capacity on the ground, relevant to each community, and as highly trained as possible. Item 3 under Universal approaches then becomes crucial for success of *these* programs.

5.5 We recommend that:

- All existing suicide prevention programs available in Indigenous Australian communities be prioritised according to currently available evaluation and expert consensus, and that additional funding be provided to:
    - Ensure existing programs can survive and be sustained;
    - Ensure successful programs are culturally adapted for other communities;
    - Evaluate programs to the best of local ability, within culturally acceptable parameters, and utilising evaluation expertise from existing experts in;
    - Discuss implications of programs in detail at convocations (see above).

5.6 Several programs for which good evidence exists should be made available to every Indigenous community, and could form the basis of work for local trained Aboriginal Health Workers. For example:

- *Mental Health First Aid* (Kitchener & Jorm, 2006), and/or
- *ASIST* (*Applied Suicide Intervention Skills Training*, Living Works).

5.7 From emerging evidence there is urgent need for culturally informed interventions targeting Aboriginal Australian prison inmates and young Aboriginals in youth detention centres; these could reduce suicide rates in these at-risk populations. Programs need to provide careful transition back into communities with ongoing support of social and emotional wellbeing. In addition, funding needs to be provided for programs to rebuild understanding of culture, educational status, a sense of role and purpose, and transition to meaningful work.

5.8 It is clear from the literature that alcohol and other substance abuse play a large role in pathways to suicide, both for young people and for older suicides. There is a need for programs developed specifically for community-based Indigenous young Australians in the areas of awareness of risks and problems associated with abuse, and strategies for changing behaviour. Funding should be made available to trial and evaluate programs - which might be based in supporting developing resilience through awareness of culture and improved identity *or* might lead to intervention in high risk young people who currently abuse alcohol and other substances.

5.9 A corollary of the need for alcohol abuse reduction relates to Foetal Alcohol Syndrome in Indigenous communities. Foetal Alcohol Syndrome (FAS) is the most common preventable cause of mental retardation and is due to alcohol use in the first trimester of pregnancy. FAS has long term implications for education, social relationships and mental health problems, and burden on families and communities. Rates are said to be 10 times higher in Indigenous communities. Heightened awareness, education and Early Intervention reduce rates (Senate Select Committee on Regional and Remote Indigenous Communities - September 2008[4]).

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[4] http://www.aph.gov.au/senate/committee/indig_ctte/reports/2008/report1/c05.htm

The Review

Key Principles

This Report is based on the following key principles from a review of the policy and literature, as well as consultations with key informants judged to be expert in the field (see from page 75 onwards for in-depth discussion):

1. Community Empowerment
2. Recognition of Human Rights, Transgenerational Trauma, Loss and Grief
3. Development of Individual, Family and Community Social and Emotional Wellbeing
4. Acknowledgement and Recognition of Aboriginal and Torres Strait Islander Diversity and Importance of the Local Context
5. Direct Involvement of Community Members and Development of Local Workforce
6. Ensuring Program Sustainability and Organization Capacity
7. Evidence- or Theory-Base for Programs
8. Appropriate Program Evaluation
9. “Researching Ourselves Back to Life”

Overall, the principles involve a commitment to improve mental health status in Indigenous Australians to eliminate any differences between their social and emotional wellbeing and that of the rest of the Queensland population. The principles acknowledge the holistic and relational concept of health (social, emotional, cultural, spiritual) so important in Aboriginal and Torres Strait Islander culture, and are consistent with a wide range of existing policy and other documents:

- *Universal Declaration of Human Rights* (United Nations, 1948)
- *United Nations Declaration on the Right s of Indigenous Peoples* (UN, 2008)
- *Prevention of Mental Disorders: Effective Interventions and Policy Options. Summary Report* (World Health Organization [WHO], 2004)
- *Promoting Mental Health: Concepts, Emerging Evidence, Practice* (WHO, 2005a)
- *Living Is For Everyone (LIFE) Framework: A Framework for Prevention of Suicide in Australia* (Commonwealth of Australia, 2007)
- *National Mental Health Plan 2003-2008* (Australian Health Ministers, 2003)

- *National Action Plan for Promotion, Prevention and Early Intervention for Mental Health 2000* (Commonwealth Department of Health and Aged Care, 2000)
- *National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013: Australian Government Implementation Plan 2007-2013* (Australian Government Department of Health and Ageing, 2003)
- *National Strategic Framework for Aboriginal and Torres Strait Islander People's Mental Health and Social and Emotional Well Being 2004-2009* (National Aboriginal and Torres Strait Islander Health Council, 2004a)
- *Values and Ethics: Guidelines for ethical conduct in Aboriginal and Torres Strait Islander Health Research* (National Health and Medical Research Council, 2003).
- *Keeping research on track: A guide for Aboriginal and Torres Strait Islander peoples about health research ethics* (National Health and Medical Research Council, 2005).
- *Guidelines for ethical research in Indigenous studies* (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2000)
- *Reducing Suicide: The Queensland Government Suicide Prevention Strategy 2003-2008* (Queensland Health, 2003a) and *Reducing Suicide: Action Plan: Queensland Government Suicide Prevention Strategy 2003-2008* (Queensland Health, 2003b)
- *Queensland Mental Health Policy Statement: Aboriginal and Torres Strait Islander People* (Queensland Health, 1996)
- *Queensland Plan for Mental Health 2007-2017* (Queensland Government, 2008)

It is important to recognise the particular place of the *Ottawa Charter for Health Promotion* (WHO, 1986), adopted at the First International Conference on Health Promotion in 1986 and a basis for development of *Jakarta Declaration on Leading Health Promotion into the 21st Century* (WHO, 1997) and *Bangkok Charter for Health Promotion in a Globalized World* (WHO, 2005b). Ottawa Charter defines health promotion as "the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social wellbeing, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life; not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to wellbeing" (p. 1). Health promotion can be achieved through building healthy public policy, creating supportive environments, strengthening community actions, development of personal skills, appropriate reorientation of health services and moving into the future.

The Charter indicated that *health improvement requires a secure foundation in the following prerequisites* - Peace, Shelter, Education, Food, Income, A stable eco-system, Sustainable resources, and Social justice and equity.

Literature search strategy

The Report is based upon review of literature regarding suicide and suicide prevention, and other relevant material on mental health promotion in the context of social and emotional wellbeing of Aboriginal people and Torres Strait Islanders in Australia, and in Indigenous peoples in Canada, USA, and New Zealand. Review of literature on Aboriginal and Torres Strait Islander Australians encompasses published articles (including reviews), funding body reports and project reports where appropriate. Review of *international literature* is based upon published review articles and major reports from Canada, USA, and New Zealand.

Published literature was searched through PubMed, PsycINFO, Australian Indigenous HealthInfoNet, and Web of Science using the following keywords: "indigenous" OR "aboriginal" OR "atsi" AND "indigenous suicide" OR "aboriginal suicide" OR "suicide prevention" AND "australia*". Lists of references of retrieved articles were searched to identify further material. Unpublished literature, including community organisation reports, project protocols and reports, workshop reports and conference proceedings were identified through Internet search engines using key words listed above and accessed online. Other material was identified through searches of online Aboriginal and Torres Strait Island health bibliographies and research and public policy centres and Australian Government departments. Additional published and/or unpublished resources were identified through consultations with other Key Informants and Experts (see Appendix One).

Policy Review on Suicide Prevention, Mental Health and Social and Emotional Wellbeing in Aboriginal and Torres Strait Islander Australians

This section provides a review of government policies and strategies related to suicide prevention, mental health and social and emotional wellbeing in Indigenous Australians[5][6]. Some policies and strategies include special cultural considerations for Indigenous Australians, others provide direction, targets and strategies for all Australians. Our overall conclusion is that considerable affirmative action is required to enable Indigenous Australians to reach equity with all other Australians.

Reducing Suicide: Queensland Government Suicide Prevention Strategy 2003-2008 (Queensland Health, 2003a) and Reducing Suicide: Action Plan: Queensland Government Suicide Prevention Strategy 2003-2008 (Queensland Health, 2003b)

The Queensland Government Suicide Prevention Strategy recognises Indigenous Queenslanders as a priority group for suicide prevention, including Indigenous people in custody. The strategy identifies seven Outcome Areas, some with special considerations for the Aboriginal populations (in particular, Outcome Six):

Outcome Area One: Enhanced community capacity to promote and maintain social, emotional, cultural and spiritual wellbeing across the lifespan.

Outcome Area Two: A more knowledgeable community, able to take responsibility and implement risk reduction strategies.

Outcome Area Three: Greater system-wide knowledge, capacity and skills to ensure services are able to intervene early and respond effectively to suicide and suicidal behaviour.

Outcome Area Four: Enhanced treatment and support services that are responsive to people who are at high risk of suicide and suicidal behaviour.

Outcome Area Five: A coordinated system of care across sectors, between Departments, services and individual providers.

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[5] Funding for the original review was provided by Health Promotion Queensland. The review could ultimately benefit from inclusion of policies from other states of Australia.

[6] In this section we have retained the original (although inconsistent) terminology in relation to Indigenous Australians used in the documents we quote.

Outcome Area Six: Service responses across the spectrum of interventions that are culturally sensitive and consider the needs of Aboriginal and Torres Strait peoples, including the following strategies:

- Engage Indigenous communities in identifying the cultural, historical and spiritual factors which may influence suicide and suicidal behaviour (*Outcome Area One*);
- Promote approaches to enhance self-esteem and capacity to enable individuals and communities to connect with a value system based on identity, place, people and land (*Outcome Area One*);
- Develop partnership approaches with communities to strengthen local responses to complex issues, including drug and alcohol use, interpersonal conflict, violence, and grief and loss (*Outcome Areas Two, Three and Four*);
- Enhance primary health and mental health services for Indigenous peoples to promote mental health and prevent mental illness (*Outcome Areas Two and Three*);
- Improve access to specialist mental health services (*Outcome Areas Four and Five*);
- Enhance the capacity of communities and front line workers to recognise and respond to risk at the individual and community level (*Outcome Areas Two, Three and Four*), and
- Develop partnerships with Indigenous peoples to improve data collection, research and evaluation and sharing of best practice approaches across communities and sectors (*Outcome Area Seven*).

Outcome Area Seven: Evidence-based policy, program and service development.

COMMENT: *Outcome Area One* goes to the heart of this review. Together with *Outcome Area Two* it informs and guides our recommendations on Actions needing to be taken. *Outcome Area Four* evokes comments similar to those in our responses to the Commonwealth of Australia (2008) Principles 3, 5, 6 and 7.

The overarching guiding principles underlying the Strategy (all applicable to suicide prevention in Indigenous Australians) are presented in Table 1 (below).

Table 1. Principles underlying Queensland Government Suicide Prevention Strategy (Queensland Health, 2003a)

1. A focused and collaborative government approach.
2. Active partnership development across sectors.
3. A range of interventions and responses from a focus on wellbeing and prevention, through to improved access to care and relevant services, to postvention.
4. Continuous learning, implementation of agreed best practice and further development of the body of evidence.
5. Sustainable outcomes that build on existing infrastructure.
6. Culturally appropriate actions responsive to the needs of local communities.
7. Contextually sensitive and targeted actions that respond to particular needs of urban and rural areas, and regional profiles.
8. Do no harm.

Queensland Mental Health Policy Statement: Aboriginal and Torres Strait Islander People (Queensland Health, 1996)

The Policy Statement recognises Aboriginal and Torres Strait Islander people as a priority group which calls for specific strategies to ensure equal access to appropriate mental health services and to improve the standard of treatment provided there. The Policy identifies seven Key Areas for action and recommends a number of strategies under each of the Areas:

Area One: Culturally appropriate service provision.
Area Two: Participation and partnership.
Area Three: Needs based criteria for service provision and resource allocation.
Area Four: Workforce planning and development.
Area Five: Information, monitoring and evaluation.
Area Six: Community education and support.
Area Seven: Across government approach to the provision of key social and infrastructure services.

Queensland Plan for Mental Health 2007-2017 (Queensland Government, 2008)

The Plan includes Aboriginal and Torres Strait Islander (ATSI) populations among high suicide risk groups. The Plan supports strategies aiming to reduce suicide risk and mortality and supports programs building individual and community resilience and capacity in the ATSI populations (*Priority One*: Mental Health Promotion, Prevention and Early Intervention) and aims to improve mental health services available to these populations, including employment of ATSI mental health workers and supporting specialist hubs of expertise (*Priority Two*: Integrating and Improving the Care System). "Improved capacity to respond to the mental health needs of Aboriginal and Torres Strait Islander people" is among the Plan outcomes envisaged for the year 2017.

COMMENT on *Queensland Mental Health Policy Statement* and *Queensland Plan for Mental Health 2007-2017*

Area Four of the Policy Statement is relevant to comments made on the *LiFE Framework* principles 3, 5, 6 and 7. There is a clearly a need to adopt a program of affirmative action. As part of this we recommend review of the possibilities for training of Indigenous Australians at all levels of the Mental Health workforce. *Priority Two* of the Plan cannot be achieved without a critical mass of workers steeped in local culture and acceptable to local communities.

Living Is For Everyone (LiFE) Framework: A Framework for Prevention of Suicide in Australia (Commonwealth of Australia, 2007)

The current national framework for suicide prevention in Australia recognises Aboriginal and Torres Strait Islander populations as a group at high risk of suicide. The framework indicates six Action Areas with several special considerations for the Aboriginal and Torres Strait Islander population:

> *Action Area One:* Improving the evidence base and understanding of suicide prevention, including application and continuing development of the research and evidence base for suicide prevention in Aboriginal and Torres Strait Islander communities (Outcome 1.3).

Action Area Two: Building individual resilience and the capacity for self-help, including development and promotion of programs that enhance help-seeking in Aboriginal and Torres Strait Islander communities (Outcome 2.2).
Action Area Three: Improving community strength, resilience and capacity in suicide prevention.
Action Area Four: Taking a co-ordinated approach to suicide prevention.
Action Area Five: Providing targeted suicide prevention activities, including support for interventions for groups identified as high risk, including men in Aboriginal and Torres Strait Islander communities (Outcome 5.3).
Action Area Six: Implementing standards and quality in suicide prevention.

Although no special consideration for Aboriginal and Torres Strait Islander Australians is provided in the principles and aims of the framework, these will clearly apply to all Australians. All programs developed under the framework, including those targeting Indigenous Australians should aim to build stronger individuals, families and communities, increase individual and group resilience to traumatic events, and increase community capacity to identify and respond to needs. They should support the individual and community capability to respond quickly and appropriately, and to provide a coordinated response and smooth transitions to and between care. The framework principles are presented in Table 2.

Table 2. Principles underlying *Living Is For Everyone (LiFE) Framework* (Commonwealth of Australia, 2007).

1. Suicide prevention is a shared responsibility across the community (including families and friends), professional groups, and non-government and government agencies.
2. Activities should be designed and implemented to target and involve: the whole population; specific communities and groups who are known to be at risk of suicide; and individuals at risk.
3. Activities need to include access to clinical or professional treatment for those in crisis and support for people who are recovering and getting back into life.
4. Activities must be appropriate to the social and cultural needs of the groups or

populations being served.

5. Information, service and support need to be provided at the right time, when it can best be received, understood and applied.
6. Activities need to be located at places and in environments where the target groups are comfortable, and where the activities will reach and be accessible to those who most need them.
7. Local suicide prevention activities must be sustainable to ensure continuity and consistency of service.
8. Suicide prevention activities should either be, or aim to become, evidence-based, outcome focused and independently evaluated.
9. Suicide prevention activities should first do no harm. Some activities that aim to protect against suicide have the potential to increase suicide risk amongst vulnerable groups. Activities need to respect the context, health, receptivity and needs of the person who is feeling suicidal.
10. Activities need to be sensitive to the broader factors that may influence suicide risk – the many social, environmental, cultural and economic factors that contribute to quality of life and the opportunities life offers – and how these vary across different cultures, interest groups, individuals, families and communities.
11. Services for people who are recognised as suicidal should reflect a multi-disciplinary approach and aim to provide a safe, secure and caring environment.

COMMENT: *Principle 1* creates complexity and confusion. Who coordinates programs (funded at multiple levels) to ensure synergy and avoid duplication at the community level? Careful mapping of programs in communities is needed to clarify who funds what for whom, the coordination, duplication, and gaps requiring funding.

Principles 3, 5, 6 and 7 reflect problems for Indigenous communities resulting from remoteness, isolation and relative inaccessibility. Funding provided on a per capita basis may lead to many small communities missing out in terms of all four principles. A program of affirmative action is needed to ensure all Indigenous Australian communities have access to services which, while culturally appropriate, meet standards which can be expected by any Australian. A corollary is that there is a need for training programs providing a critical mass of culturally relevant staff to communities.

National Mental Health Plan 2003-2008 (Australian Health Ministers, 2003)

The National Plan recommends that mental health care should be responsive to the particular needs of Aboriginal and Torres Strait Islander consumers, families and carers, and communities, and indicates the need for investment in the Aboriginal and Torres Strait Islander health workforce. The plan acknowledges that mental health reforms must occur in concert with other developments in the broader health sector. Among the 34 Outcomes and Key Directions, several have special application to Aboriginal and Torres Strait Islander Australians. These include:

> *Key Direction 3.4:* Support antidiscrimination initiatives aimed at identifying and combating the impact of racism on the wellbeing of the Aboriginal and Torres Strait Islander people.
>
> *Key Direction 6.2:* Promote activities aimed at reduction of risk factors and strengthening of protective factors for suicidal behaviour for the general community and for groups of high suicide risk, such as Aboriginal and Torres Strait Islander people.
>
> *Outcome 16:* Improved access to services for Aboriginal and Torres Strait Islander people, which encompass:
>
>> *Key Direction 16.1:* Include Aboriginal and Torres Strait Islander people in mental health policy-making and planning.
>>
>> *Key Direction 16.2*: Deliver mental health care through partnerships between mental health services and Aboriginal and Torres Strait Islander-specific health service, with Aboriginal and Torres Strait Islander people taking a lead role through the Social and Emotional Wellbeing Framework Agreement Partnership Forums.
>>
>> *Key Direction 16.3:* Facilitate access for Aboriginal and Torres Strait Islander people to mental health services, which may include recognising the importance of early intervention in the primary care setting, increasing outreach services, and improving access to psychiatrists.
>>
>> *Key Direction 16.4:* Improve the cultural appropriateness and safety of mental health service options for Aboriginal and Torres Strait Islander people, through enhancing knowledge of risk factors for Aboriginal and Torres Strait Islander people, improving cultural awareness for the mental health workforce,

addressing workforce issues for Aboriginal and Torres Strait Islander health and mental health workers, and supporting community initiatives.

Key Direction 16.5: Improve linkages between mainstream mental health services and general practitioners, and Aboriginal and Torres Strait Islander health services and drug and alcohol services.

Key Direction 16.6: Support the implementation of the Social and Emotional Wellbeing Framework, once agreed upon.

Key Direction 16.7: Drawing on the Social and Emotional Wellbeing Framework and this Plan, support the development and implementation of State and Territory Aboriginal and Torres Strait Islander Social and Emotional Wellbeing Plans.

COMMENT on *Key Directions* 16.2 and 16.3: An issue for discussion here relates to the place of diagnosable mental illness in Indigenous Australians and whether this is of biological origin (as with all other racial origins) social origin (given the marked level of social exclusion which exists), or historical (related to long term traumatisation from results of the Stolen Generation). Either way we recommend clarification of accessible and appropriate pathways to care which, while culturally aware, do not use culture as a block to high quality rapidly accessed psychiatric services where needed. This will foster Early Intervention in the context of a whole population.

Outcome 22: Improved coordination between the mental health sector and other areas of health, such as child and adolescent services, general adult services, aged care services, drug and alcohol services and Aboriginal and Torres Strait Islander health services which encompass:

Key Direction 22.2: Improve continuity of care between Aboriginal and Torres Strait Islander health services and mental health services through local planning and partnerships.

Key Direction 25.2: Include Aboriginal and Torres Strait Islander community, consumer and carer representatives on appropriate committees through the Aboriginal and Torres Strait Islander Framework Agreement Partnership Forums.

Key Direction 28.4: Support improvements in the effectiveness and quality of mental health services, through the development of complementary outcome measure and instruments for specialist sectors and particular groups, such as Aboriginal and Torres Strait Islander people.

Key Direction 29.1: Identify, monitor and disseminate information about effective models of service and partnerships that improve service responsiveness to Aboriginal and Torres Strait Islander people.

Key Direction 29.2: Improve the usage of Aboriginal and Torres Strait Islander identifiers in health data collection.

Key Direction 30.2: Develop funding formulae based on population needs weighted for Aboriginal and Torres Strait Islander populations, rural and remote locations and other relevant variables.

Key Direction 33.5: Increase the proportion of Aboriginal and Torres Strait Islander mental health workers within the mental health workforce and provide appropriate support and career structures.

National Action Plan for Promotion, Prevention and Early Intervention for Mental Health 2000 (Commonwealth Department of Health and Aged Care, 2000)

The National Plan recognises the Aboriginal and Torres Strait Islander population as a priority group for its initiatives across the lifespan and in coordination with initiatives for related priority groups, for example people living in rural and remote areas. The Plan aims to promote mental health, and prevent and reduce mental health problems and mental disorders among Aboriginal and Torres Strait Islander peoples through reduced social disadvantage, racism and oppression, mental health literacy, culturally appropriate initiatives determined by local communities, community capacity to be resilient to adversity, enhanced protective factors for mental health problems and mental disorders, reduces risk factors for mental health problems and mental disorders, especially around issues of loss, trauma, incarceration, violence and substance misuse, awareness of mainstream services of the impact of cultural issues on the mental health of Aboriginal and Torres Strait Islander peoples, and links between mainstream and Aboriginal Community Controlled Health Services.

The Plan indicates six *Outcome Indicators* for all priority groups, including Aboriginal and Torres Strait Islander people:

Outcome Indicator One: Reduction of mental health problems and symptoms as these relate to a range of symptomatic presentations and disorders, including anxiety, depression, postnatal depression, substance misuse, conduct disorder and behavioural disorders, suicide and self-harming behaviours, eating disorders, psychosis, and dementia.

Outcome Indicator Two: Increased mental health, wellbeing, quality of life and resilience.

Outcome Indicator Three: Increased mental health literacy.

Outcome Indicator Four: Improved family functioning and parenting skills.

Outcome Indicator Five: Enhanced social support and community connectedness.

Outcome Indicator Six: Increased investment in evidence-based programs relevant to promoting mental health and preventing and reducing mental health problems and mental disorders by governments and non-government agencies.

The following outcome indicators are recommended specifically for Indigenous populations:

1. Reduced racism and discrimination for Aboriginal peoples and Torres Strait Islanders;
2. Improved capacity for Aboriginal and Torres Strait Islander communities to be self-determining and resilient;
3. Reduced socioeconomic disadvantage, violence, incarceration, family separation, substance misuse, depression and anxiety for the Aboriginal and Torres Strait Islander communities, and
4. Reduced suicide and self-harm for Aboriginal and Torres Strait Islanders who are incarcerated.

The Plan indicates eight *Process Indicators* for all priority groups:

Process Indicator One: Increased monitoring and surveillance of mental health problems, mental disorders and risk and protective factors, including social and family functioning.

Process Indicator Two: The presence of evidence-based programs related to promotion, prevention and early intervention for all priority groups.

Process Indicator Three: Increased early identification of mental health problems and mental disorders and appropriate referral.

Process Indicator Four: Increased community education related to mental health.

Process Indicator Five: Increase in public policy and practices that promote mental health in all relevant settings (including family, education, workplace, recreation, and community).

Process Indicator Six: Increased professional education and training.

Process Indicator Seven: Increased inter, intra, and multisectoral collaboration and partnerships.

Process Indicator Eight: Increased mental health research and evaluation activities.

In addition, the following process indicators are recommended specifically for the Aboriginal populations:

1. Aboriginal community ownership of programs;
2. Torres Strait Islander community ownership of programs;
3. Increase in culturally appropriate mental health promotion, prevention and early intervention initiatives;
4. Joint planning between Aboriginal Community Controlled Health Services and mainstream organizations;
5. Increase in Aboriginal peoples and Torres Strait Islanders professionally trained and employed in health and education settings.

Of special interest is identification of *Media* as a key strategic group in the Plan. It recognises how media present Indigenous Australians and communities impacts on non-Indigenous prejudice and discrimination, and recommends a media strategy to promote positive messages on social/cultural diversity, to reduce discrimination and prejudice.

COMMENT regarding *Process Indicator Two*: This is problematic in that our review and discussion reveal that there is considerable rhetoric in this area, but very little in the way of practice based evidence or evidence based practice to drive interventions. We recommend culturally appropriate programs of research which paired Indigenous and non-Indigenous researchers to gain best available evidence in the areas of promotion, prevention and early intervention specifically to drive relevant and culturally appropriate programs of prevention (*Process Indicator Eight*). In the context of this review, the aim of the Plan (while inclusive and wordy) does cover the territory we have aimed to cover. *Indicators Two* and *Three* relate to this document, and challenge us to understand the enormity of the task if we are to realistically achieve the outcome.

Outcome Four: This is critical to SEWB of future Indigenous Australians. Review of the complexity of Indigenous Australian family functioning and parenting skills would clarify how these may be influenced in a culturally appropriate manner.

National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013: Australian Government Implementation Plan 2007-2013 (Australian Government Department of Health and Ageing, 2007)

This is the second Implementation Plan against the *National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013* (National Aboriginal and Torres Strait Islander Health Council, 2004b)[7] which aims among other things to strengthen the service infrastructure essential to improving access by Aboriginal peoples to health services and responding to substance misuse, mental disorder, stress, trauma and suicide, and recognises improving emotional and social heath and wellbeing with particular emphasis on addressing mental health problems and suicide among its immediate priority areas for government action.

COMMENT: The National Strategic Framework and Implementation Plan lay out the context and content of what is necessary to improve Indigenous health. They underscore our recommendations on a program of affirmative action to enhance services, and training for long-term culturally appropriate service provision. *Key Result Area Four* in the Implementation Plan is Social and Emotional Wellbeing.

National Strategic Framework for Aboriginal and Torres Strait Islander People's Mental Health and Social and Emotional Well Being 2004-2009 (National Aboriginal and Torres Strait Islander Health Council, 2004a)

Two *Key Strategic Directions*, including relevant *Action Areas* of the framework are directly applicable to suicide prevention in Aboriginal Australians:

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[7] The first report back under the implementation plan of the National Strategic Framework is *Aboriginal and Torres Strait islander Health Performance Framework 2006 Report*. Canberra: AGDHA. Available at: http://www.dhs.vic.gov.au/pdpd/koori/downloads/healthperformanceframework_112006.pdf.
The latest report (Australian Government Department of Health and Ageing (2008). *Aboriginal and Torres Strait Islander Health Performance Framework. Report Summary*. Canberra: AGDHA) will be released at the end of 2008.

Key Strategic Direction 1: Focus on children, young people, families and communities

Key Result Area 1.3: Responding to grief, loss, trauma and anger.

Action Area 1.3.6: Acknowledge and recognise the causes of individual and community anger and provide effective programs to reduce the risk of violent behaviour and self-harm.

Key Strategic Direction 4: Coordination of resources, programs, initiatives and planning.

Key Result Area 4.1: Providing optimal funding and coordination in order to improve Aboriginal and Torres Strait Islander mental health and social and emotional wellbeing.

Action Area 4.1.2: Increase mainstream funding to Aboriginal Community Controlled Health Services to operate mental health and social and emotional wellbeing programs to respond to grief and loss issues, suicide, substance misuse, family violence and child abuse.

COMMENT: While increased funding to Aboriginal Community Controlled Health Services may be important (see *Action Area 4.1.2*, National Strategic Framework for Aboriginal and Torres Strait Islander People's Mental Health and Social and Emotional Wellbeing 2004-2009), it is at this point in our narrative unclear just which programs would provide the most benefit in providing mental health and social and emotional wellbeing programs to respond to grief and loss issues, suicide, substance misuse, family violence and child abuse. We would recommend discussion with Aboriginal Community Controlled Health Services to fund trials in the area of improving social and emotional wellbeing, to see what impact this has on grief and loss issues, suicide, substance misuse, family violence and child abuse. Clearly such trial programs would need to observe criteria we have provided for ethical practice in this area (see Appendix Two).

Indigenous Suicide in Australia

Health and Welfare of Indigenous Australians

The estimated resident number of Indigenous Australians as at June 2006 was 517,200 people, including 463,900 Aboriginal people, 33,100 Torres Strait Islanders and 20,200 people identifying as both Aboriginal and Torres Strait Islander, altogether comprising 2.5% of the total Australian population (Australian Bureau of Statistics & Australian Institute of Health and Welfare [ABS&AIHW], 2008). Twenty eight percent (28%) of Indigenous Australians (146,400 people) live in Queensland and they comprise 3.6% of the population of the state (ABS&AIHW, 2008). Based on the Remoteness Area classification, 26% of Indigenous Australians in Queensland live in major cities, 20% in inner regional areas, 32% in outer regional areas, 8% in remote and 14% in very remote areas (ABS, 2007b).

Geographical location has an impact on health and welfare of Indigenous Australians. The *Baseline Report* (Partnerships Queensland, 2006) shows differences between the status of Aboriginal people living in major cities, inner and outer regional and remote/very remote locations, and Torres Strait Islanders, including health factors, disability, cultural strength, mortality, and family and community wellbeing. Overall, people living in Aboriginal Deed-of-Grant-in-Trust (DOGIT) communities in Queensland face the most difficult conditions across a range of health and welfare indicators, including non-fatal and fatal suicidal behaviour.

A detailed discussion of the welfare and health status of Aboriginal and Torres Strait Islanders is beyond the scope of this Report. However, it should be noted that the *Social Justice Report 2005* (Aboriginal and Torres Strait Islander Social Justice Commissioner, 2005) "detailed the poor state of Indigenous health and Indigenous health inequality as compared to the rest of the population. It set out how the 'right to health' could guide government action on Indigenous health, and recommended that all governments of Australia commit to a campaign to achieve Indigenous health and life expectation equality within 25 years. In order to achieve this goal, the report recommended that governments commit to achieving equal access to primary health care and health infrastructure for Indigenous Australians within 10 years" (Calma, 2007; p. S5).

To date "there is some evidence that ATSI people do not have the same level of access to many health services as other Australians and this can adversely impact on their health outcomes. The relatively poor health status and high mortality and morbidity rates among Indigenous Australians points to the need for more health services and a greater per capita investment of health resources for this population." (ABS&AIHW, 2008; p. 187). In 2004-05, the average expenditure on health goods and services for Aboriginal and Torres Strait Islander Australians was $4,718 per capita, approximately 17% higher than the expenditure for other Australians ($4,019). This level of expenditure is not sufficient to match the needs of Aboriginal and Torres Strait Islander people, who have high levels of morbidity and whose mortality rates are more than twice the rates for non-Indigenous Australians (ABS&AIHW, 2008).

Mortality in Indigenous Australians

Considerable caution is required regarding mortality data (including suicide) of Indigenous Australians. There are numerous problems with data quality and availability, including identification of Aboriginal status, differences between States and Territories regarding coronial procedures and data collection systems, and classification of the external causes of mortality and morbidity (ABS&AIHW, 2008; Moller, 1996). In Queensland, information on Aboriginal status of the deceased on death certificates has been required only from January 1996 onwards and, prior to this, it was not possible to determine the injury death rate in Aboriginal and Torres Strait Islander populations (Moller, 1996).

Available data indicate that overall mortality rates among Indigenous males and females are almost three times higher than for non-Indigenous Australians, and there is a 17-year gap between life expectancy at birth for Indigenous and non-Indigenous males and females (59 v. 77 years and 65 v. 82 years; respectively) (ABS&AIHW, 2008). The five leading causes of death in Indigenous Australians are: (1) diseases of the circulatory system; (2) injury; (3) neoplasms; (4) diabetes and other endocrine, metabolic and nutritional disorders, and (5) respiratory diseases. Over the period of 2001-2005, external causes of mortality, such as accidents, suicide and assaults represented 16% of all deaths among Indigenous Australians (compared with 6% of deaths in the non-Indigenous population). In the same period, Torres Strait Islander Australians were less likely to die from external causes including injury (10%) than Indigenous Australians overall (16%); however, they were more likely to die from cancer (21% versus 15%) (ABS&AIHW, 2008).

Elevated mortality rates (including suicide) have also been reported in other Indigenous populations worldwide, such as the Maori in New Zealand, American Indians and Alaska Natives in the US, and the Aboriginal people in Canada (Freemantle, Officer, McAullay, & Anderson, 2007; Hill, Barker, & Vos, 2007; Ring & Firman, 1998; Stevenson, Wallace, Harrison, Moller, & Smith, 1998). Still, the situation of Indigenous Australians looks grim even in comparison to other Indigenous populations (Freemantle et al., 2007), and not much has changed since 1995 when Ring observed that "expectations for life for Indian populations in Canada and the United States, and for the Maoris in New Zealand are at least 10 years more than for Australian Aborigines, an enormous difference. Maori adult death rates are falling at a *faster* rate than for whites in New Zealand, and the gap in the expectation of life between the United States Indians and the United States whites is now only three years, whereas in Australia, the gap in the expectation of life between Aboriginal communities and the total population in most states is the best part of 20 years" (Ring, 1995; p. 228).

The Indigenous peoples in Australia, New Zealand, the United States and Canada share some similarities: they have been colonized by the British, exposed to genocide, racism and discrimination, and currently are citizens of liberal Western democracies (Kunitz, 1994; Kunitz & Brady, 1995). At the same time, there have been differences regarding the history of colonization and current social and political practices which can account for the disparities in the health status among Indigenous groups. According to Kunitz (1994), the particularly bad mortality and morbidity status of Aboriginal Australians can be traced back to two factors concerning the ways governments have been dealing with the Native people across history: signing of treaties and the level of responsibility for Indigenous affairs. Although treaties signed by colonizing powers have been notoriously breached, at least they gave Native peoples in New Zealand or the United States legitimization for claims for land, reparation, and services. No such treaties have ever been signed in Australia.

Regarding the level of responsibility for Native people's affairs, Kunitz (1994) observed that "(…) no matter how difficult the relationship between the indigenous peoples and the federal government, from the perspective of indigenous peoples it is still preferable to control by state governments. Having state governments assume responsibility for native affairs is not unlike using a fox to guard the chickens, for state governments have even more direct conflicts of interest over land rights than do federal governments" (p. 28). Again, in Australia the responsibility has been mostly at the state/territory level.

Epidemiology of Indigenous Suicide

In 2001-05, suicide was the leading cause of death from external causes for Indigenous Australian males (35% of such deaths), and the second leading external cause of death for Indigenous Australian females (18% of deaths) (ABS&AIHW, 2008). Among Australian males, the overall Indigenous suicide rate was almost three times higher than that suicide rate for non-Indigenous males, with the biggest differences in the younger age groups of 0-24 and 25-34 years. The suicide rate among Indigenous Australian females aged 0-24 was five times the rate of non-Indigenous females, and in age groups 45-54 and over the suicide rates were similar or lower than the rates for non-Indigenous females.

In 2002-04 in Queensland, Indigenous Australian suicide accounted for approximately 6% of all suicide deaths (De Leo, Klieve, & Milner, 2006). The overall suicide rate in Indigenous Queenslanders was almost twice that of non-Indigenous (25 per 100,000 v. 15 per 100.000; respectively) and the majority of Indigenous suicides (74%) were under the age of 35 years. Highest rates were observed among males in the 15-24 and 25-34 years groups (108 per 100,000 and 56 per 100,000; respectively); both almost three times higher than corresponding rates for non-Indigenous males.

Regarding geographic location, in 2000-02 suicide rates in Aboriginal and Torres Strait Islander Australians are highest in remote areas (55 per 100,000), lower in inner and outer regional areas (37 per 100,000 and 35 per 100,000; respectively) and lowest in major cities (16 per 100,000). Highest suicide rates were found in DOGIT communities (68 per 100,000) - twice the overall Indigenous Australian rate (30 per 100,000). Suicide rates are lower in Torres Strait Islander Australians (18 per 100,000) (Partnerships Queensland, 2006).

Of special concern is the high and increasing number of suicides among Indigenous Australian children and adolescents (Commission for Children and Young People and Child Guardian Queensland, 2007). In 2006-07, 6 of the 19 children and young people who completed suicide in Queensland were of Aboriginal or Torres Strait Islander origin, including 5 deaths in the 10–14 age group and 1 death in the 15–17 age group. The majority were males (5 deaths). Aboriginal and Torres Strait Islander children and adolescents accounted for approximately a third of young suicide victims, despite comprising only 6% of the state youth population. There was an increase in comparison with findings reported from the period of 2005-06, where Aboriginal and Torres Strait Islander children accounted for 20% of child suicides. In 2006-07 the rate of suicide among Indigenous Queensland children was seven times greater than for non-Indigenous children (22 per 100,000 and 3 per 100,000; respectively).

Hanging has been the most common method of Indigenous suicide and attempted suicide in Queensland and across Australia since the mid-1980s (Boots et al., 2006; Cooke, Cadden, & Margolius, 1995; Davidson, 2003; Hunter, Reser, Baird, & Reser, 1999; Kosky & Dundas, 2000). In Queensland in 2002-04, hanging accounted for 90% Indigenous suicides (De Leo et al., 2006). Indigenous suicides by hanging are of special concern due to easy availability and high lethality of the method, and its acquired deep political and cultural meaning linked to the Report of the Royal Commission into Aboriginal Deaths in Custody (1991). There is a pattern of high risk for impulsive young Indigenous males under the pressure of interpersonal problems and under the influence of alcohol, who choose this common popular and culturally and politically meaningful method with a fatal or a non-fatal result (Hunter et al., 1999).

One of the particular features of Indigenous Australian suicide is temporal clustering of deaths in certain geographical areas and communities, a pattern reported in Queensland (Hunter et al., 1999; Reser, 1989a) and in the Northern Territory (Hanssens, 2007a; 2007b; Hanssens & Hanssens, 2007; Parker & Ben-Tovim, 2002). In the late 1990s, Hunter and his colleagues (1999) examined the distribution of suicide through time in one of the Northern Queensland communities and found an aggregation of suicide deaths, with gaps of several years between the aggregates. The possible first cluster of three suicides in the span of as many months occurred in 1986-1987, and a more significant and extensive cluster lasted between June of 1991 and November of 1996 (17 suicides). The "epidemic-like" pattern of Indigenous Australian suicide may be related to "the dense social and interpersonal networks that exist within and between Aboriginal communities in the north (…). Once established in a community's consciousness, suicide becomes another possibility in a behavioural repertoire, interacting with other constructive and destructive means of coping" (Hunter et al., 1999; p. 78). However, in understanding Indigenous Australian suicide a deeper understanding of social determinants may be required.

Regarding non-fatal self-harm, Queensland Health hospital separation data for 2002-03 and 2003-04 show that Aboriginal and Torres Strait Islanders were almost twice as likely to be admitted to a hospital following an episode of self-harm than non-Indigenous people (2.5 per 1000 v. 1.5 per 1000) (Partnerships Queensland, 2006). Aboriginal and Torres Strait Islander Australians living in remote locations were at significantly higher risk than Aboriginal and Torres Strait Islander Australians in major cities, inner and outer regional areas. People living in the Torres Region had the lowest rates of hospital admission for self-harm, while people in Aboriginal DOGITS had the highest admission rates.

The Western Australian Aboriginal Child Health Survey (Zubrick et al., 2005) showed that 9% of Aboriginal girls and 4.1% of Aboriginal boys aged 12-17 made a suicide attempt in the 12 months prior to the study. Suicidal ideation was almost twice as prevalent among young females as among young males (20% v. 12%), an overall 16% of young people having thoughts about ending their own life in the previous 12 months. Unfortunately, no comparable data regarding suicidal ideation and attempts among young Indigenous Queenslanders is currently available.

High suicide risk among Indigenous people in contact with the corrective system warrants special attention, especially in the aftermath of the Royal Commission on Indigenous Deaths in Custody (1991) which had a significant social and political impact on the way Aboriginal suicide is perceived in Aboriginal communities and the mainstream culture (Hunter 1989; Reser, 1989a, 1989b). The Royal Commission into Aboriginal Deaths in Custody addressed the critical role that policing and incarceration play in Aboriginal and Torres Strait Islander community life. A greater proportion of the Aboriginal and Torres Strait Islander population are in prison or ex-prisoners, a group that is highly vulnerable to self harm and suicide both inside jail and in the weeks after release (Cunneen, 1997).

The proportion of Indigenous Australians in the prison population is very high: in 2007 Indigenous prisoners comprised a quarter of the prison population in Australia (24%) and in Queensland (26%) (ABS, 2007a). There are multiple reasons for the overrepresentation of Aboriginal Australians in the inmate population, such as systemic bias in policing and judicial systems, social and economic disadvantage, high rates of crime in the communities, early contact with juvenile justice system and high rates of re-offending (Coffey et al., 2004; Krieg, 2006; Weatherburn, Fitzgerald, & Hua, 2003), but a detailed discussion of these issues is beyond the scope of this Report.

The overall mortality and suicide rates of both Aboriginal and non-Aboriginal inmates are high (Dalton, 1999) and suicide has been reported as a leading cause of death in prisoners after release from jail, especially among Indigenous and non-Indigenous males (Stewart, Henderson, Hobbs, Ridout, & Knuiman, 2004). Aboriginal adolescents in custody are as likely as their non-Aboriginal fellows to attempt suicide, and given their over-representation among people in custody they comprise a high risk group requiring special attention (Lawlor & Kosky, 1992). Culturally-specific interventions targeting Aboriginal inmates (Tongs, Chatfield, & Arabena, 2007) and Aboriginal youth in detention centres (Letters & Stathis, 2004) could reduce the mortality rate in these at-risk populations.

Risk and Protective Factors for Indigenous Suicide

Despite the fact that suicide is currently a significant cause of death among Indigenous Australians, there has been very little research looking at risk and protective factors for Indigenous suicide. This section presents an overview of what is known about suicide in Aboriginal and Torres Strait Australians; however, much of the literature on the subject presents opinions and theoretical understandings of the subject rather than empirical data. Moreover, due to the changing nature of Indigenous suicide, studies and analyses published over a decade ago should be viewed with some caution. Aboriginal and Torres Strait Australians are a diverse population regarding language and culture, historical experiences (for example, mission times, DOGIT communities), levels of acculturation, living arrangements and access to services, and current knowledge regarding suicidal behaviour across a range of Aboriginal and Torres Strait peoples is practically non-existent, and urgently required if we are to reduce current rates.

Historically, suicide was very rare in traditional Aboriginal and Torres Strait Islander Australian societies, although recorded instances of Aboriginal suicide occurred first in the times of colonial expansion and involved the suicides of women and their children who threw themselves from cliffs to avoid capture by parties of white men (Coe 1989; Read 1988; Salisbury & Gresser, 1971).

Available sources on Indigenous Australian suicide state that until the mid-1980s suicide risk among Aboriginal and Torres Strait Islander people was very low or even non-existent (Burvill, 1975; Eastwell, 1987; 1988; Jones, 1972; 1973; Jones & de Horne, 1973; Kidson & Jones, 1968). For example, in Western Australia, Jones and de Horne (1973) found no suicide cases in a period of 10 years in a survey of a population of over 2,000 Indigenous people. Eastwell (1988) in his study of recorded cases of death in Arnhem Land in Northern Territory in 1957-1987 found two cases of suicide in a population of over 5,000 people. Burvill's (1975) study reported 18 cases of attempted suicide among Aboriginal people in Perth in 1971-1972. According to the literature published at that time, the low incidence of suicide could be attributed to high levels of support provided by extended families, existence of culturally sanctioned outlets for hostility, external attribution of blame, and presence of complex mourning rituals (Eastwell, 1985; Jones, 1972).

A dramatic increase in the incidence of suicide among Indigenous Australians started in the 1980s. An analysis of mortality in Northern Territory in 1981-2002 showed that the rates of suicide among Indigenous males increased by 800% (Measey, Li, Parker, & Wang, 2006) and in South Australia a 10-fold increase in Indigenous suicide was observed over the period of 1981-1988 (Clayer & Czechowicz, 1991). In Western Australia, the proportion of male deaths due to suicide increased almost 6-fold from, from 0.5% of all deaths in 1957 to 2.9% of all deaths in 1986 (Hunter, 1988a). In Queensland, Indigenous Australian suicide rates have been approximately twice as high as the non-Indigenous suicide rates since 1990 (Baume, Cantor, & McTaggart, 1998; Cantor & Slater, 1997; De Leo & Evans, 2002; De Leo & Heller, 2004; De Leo et al., 2006)[8].

Hunter (1990a; 1991a; 2006) has proposed a socio-historical frame to explain the increase in Indigenous suicide (especially in young males) observed since the mid-1980s. According to his observations, "Aboriginal suicide was rare before the late 1980s, before which it tended to be men in their third and fourth decades in non-remote areas. That changed with the Royal Commission into Aboriginal Deaths in Custody, which

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[8] Statistical information should be treated with caution due to small Aboriginal and Torres Strait Islander population numbers and relatively small numbers of suicide deaths, problems with identification of the Aboriginal and Torres Strait Islander status and possible misclassification of some deaths, for instance, accidental death instead of a suicide. Official suicide rates *may actually under-report* the incidence of Indigenous suicide in Queensland and Australia.

investigated deaths in detention, one-third of which were suicide. The intense media focus informed constructions of hanging that fore-grounded oppression, associating 'meaningfulness' with hanging. Since then, suicide has increased in the wider Aboriginal population, the highest rates being teenage and young adult males, now increasingly in remote populations, sometimes taking on 'traditional' meanings. But, the patterns continue to change. In the first months of 2004, four children aged 12 and 13 died by hanging in four communities in Far North Queensland. (…) Across Indigenous Australia the 1970s ushered in turbulent social change that has been described as 'deregulation'. This most immediately impacted young adults for whom onerous controls were lifted, with entry into the cash economy through welfare, and unrestricted access to alcohol. However, while discriminatory legislation was revoked, other barriers, less tangible but robust, persisted, what has been called 'cultural exclusion'. (…) Suicide did not increase until the late 1980s - some fifteen years delayed (…). These were teenagers and young adults – the children of that earlier generation exposed, as young adults and new parents, to deregulation and its social consequences. The young suicides were from the first generation to have been raised in that environment of unremitting instability. Not only were they at risk of self-harm but also petrol-sniffing, sexual abuse (as victims and perpetrators) and self-destructive confrontations with increasingly reactionary authorities." (Hunter, 2006; p. 9)[9]. [The original version of the quote was extensively referenced. We refer the reader to the original].

Alcohol and cannabis abuse, impulsivity, and disruption of major interpersonal relationships have been repeatedly identified as major triggering factors for Indigenous suicide (Hanssens, 2007a; Hunter, 1988a, 1988b; 1991b; Parker & Ben-Tovim; 2002; Tatz, 2001). These factors seem to operate in a context of a "lifestyle of risk" or an elevated potential for harm encompassing a range of risky behaviours, such as substance abuse, non-suicidal self-harm and impersonal violence and "clearly, risk is elevated for those individuals, particularly males from their teens through to the fourth decade of life, who are members of communities in which suicide has become common - the best indicator is at a social or community level, what [can be] called the 'community at risk'" (Hunter et al., 1999; p. 75).

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[9] Hunter (2006) has also observed that for the young Indigenous children "self-harm is no longer uncommon and its visibility in remote communities exposes children – from other children wandering the streets with cans of petrol, to violence to self and others, to threats, acts and representations of suicide. Indeed, among the child hanging-deaths described earlier, all had been exposed. They belong to the first generation in which many children's early development includes exposure to the threat or act of self-annihilation" (p. 9).

The role of psychopathology and psychological factors in relation to suicide in Indigenous Australians is not clear; there are some data to support the notion that depression, psychosis, substance abuse and "classical" warning signs of suicide can be detected in Indigenous victims of suicide. For example, an analysis of coronial records for Indigenous and non-Indigenous suicide deaths in the Top End (Parker & Ben-Tovim, 2002) showed that suicides in both populations were often preceded by expression of suicidal intent, signs of abnormal behaviour such as depressed mood and aggression, alcohol abuse and a formal diagnosis of mental illness.

The Western Australian Aboriginal Child Health Survey (Zubrick et al., 2005) identified a range of risk factors for suicidal ideation in Aboriginal youth which resemble risk factors for non-aboriginal children and adolescents, including history of exposure to family violence, low self-esteem, significant emotional and behavioural difficulties, having friends who attempted or thought about suicide, smoking cigarettes, using of marihuana and alcohol, and exposure to racism. Depression, anxiety, poor coping with stress and problem solving skills, as well as impulsivity, might increases the risk of suicide in Indigenous Australian adolescents and young adults (Henderson, 2003; Westerman, 2002a).

Other studies, observations and discussions downplay the role of psychopathology and psychological factors in Indigenous suicide, and instead focus on the impact of socio-cultural and economic factors, both current and experienced by the Aboriginal and Torres Strait Islander people in the past, such as genocide and racism (Tatz, 2001), trans-generational trauma and the impact of "Stolen Generations" (Atkinson, 2002; Human Rights and Equal Opportunity Commission, 1997), dependence of individuals and communities on the welfare system (Hunter, 2006), and easy access to alcohol and other harmful substances (Barber, Punt, & Albers, 1988; Hanssens, 2007a; Shore & Spicer, 2004). For example, members of the "Stolen Generations" and their progeny are in high risk groups for a range of conditions including mental illness, self-harm and suicide, and there are reports of witnessing the suicides of children in institutions and work stations (Healey, 1998; Huggins, 1998; Kilroy, 2008; May, 1994; Robinson, 2008; Terszak, 2008). The utter disempowerment experienced by people subjected to domination results in social illnesses described as learned helplessness and lateral violence which result in ennui, hopelessness, self hatred, addictions, family violence, depression, self harm and suicide (Briscoe, 2003; Copland, 2005; Wesley-Esquimaux & Smolewski, 2004).

The destruction of Indigenous Australian culture has resulted in ongoing grief, despair and confusion including the disruption of traditional gender roles (especially for men), cultural values and pride, disruption of kinship networks and support systems, and confusion of people forced to balance between two, often irreconcilable cultures. These factors are very strongly linked to Aboriginal and Torres Strait Islander suicide (Adams & Danks, 2007; Reser, 1991; 2004). According to Tatz (2001), the dynamics and risk factors for Indigenous Australian suicide are not comparable with those observed in the general population in Australia or any other Western country, and "Aboriginal suicide is different. (...) *Aboriginal suicide has unique social and political contexts, and must be seen as a distinct phenomenon*" (Tatz, 2001; p. 10)[10].

Very little has been written on protective factors for Aboriginal suicide in Australia. As previously mentioned, early studies linked low suicide rates before the mid-1980s to external attribution of blame, high levels of support provided by extended families, effectiveness of culturally sanctioned outlets for hostility and complex mourning rituals (Eastwell, 1985; Jones, 1972). Recently, Westerman and Vicary (2001) suggested a list of protective factors for Indigenous youth suicide, including the role of temperament and coping skills, family and external factors and positive contact with peers. According to the Western Australian Aboriginal Child Health Survey (Zubrick et al., 2005), high household occupancy level and living in extremely isolated locations might protect Indigenous Australian children from developing significant emotional and behavioural difficulties. Sport and recreation programs in Indigenous communities may strengthen social cohesion, improve school attendance, and serve as powerful protective factors against juvenile crime, substance abuse, violence and self-harm (Beneforti & Cunningham, 2002; Cunningham & Beneforti, 2005). Traditional Aboriginal and Torres Strait Islander ceremonies and spirituality also may have a potential to protect against suicide (McCoy, 2007; Tse, Lloyd, Petchkovsky, & Manaia, 2005).

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[10] Publication of Tatz's book was followed by a series of polemics (e.g., Goldney, 2002; Reser, 2004) and such an approach to Indigenous suicide seems quite controversial. On one hand, it rightly stresses the importance of socio-cultural, political and historical factors, including the history of genocide and current racism and discrimination, in aetiology of suicide in Indigenous Australians. On the other hand, it may contribute to marginalisation of Indigenous suicide as a subject of scientific research and practical prevention initiatives, and result in the denial of the role of individual risk factors, including depression, substance abuse, and lack of resilience and problem-solving skills, which could become targets of effective interventions, including school-based programs.

However we have been unable, at this time, to identify empirical studies that could provide further evidence or a theoretical framework to explain the protective impact of these factors and their application to social and emotional wellbeing of Aboriginal and Torres Strait Islander Australians.

Suicide in Indigenous Peoples: An International Perspective

Suicide in Indigenous Peoples in New Zealand, Canada and the United States

"Wherever there has been dispossession, we see in the disposed populations significant damage in health, in education levels and in social wellbeing. And dispossession of one's land in not the only form of dispossession. Native peoples have been dispossessed of their labour, language, culture, and religious beliefs as well. We are only beginning to comprehend the consequences of what occurred long ago and still continues throughout the world" (Bird, 2002; p. 1391). Indigenous people worldwide suffer from persistent social disadvantage, inferior health status and high mortality, including suicide.

Despite obvious and significant cultural, socio-economic and historical differences between and within Indigenous populations in New Zealand, Canada and the United States, several recurring themes and patterns in suicide mortality and morbidity can be identified and will be presented in this section. In general, suicide rates among Indigenous populations are elevated in comparison to non-Indigenous populations in respective countries, suicide risk is highest among young Indigenous males, age of Indigenous suicide deaths is decreasing and suicides tend to cluster. There is a significant role of alcohol in suicidal behaviour in Indigenous populations. Indigenous suicides have their roots in 'collective despair' related to persistent social disadvantage, cultural and social exclusion and destruction of cultural continuity and identity.

In *New Zealand*, suicide rates among the Maori are high, especially in the younger age groups: young Maori males and females die of suicide at higher rates than their non-Maori peers and Maori males have high rates of hospital admissions for suicide attempts. The older age groups (over 45) are relatively protected against suicide and suicide is very rare in Maori aged over 60 (Beautrais, Wells, McGee, & Oakley Browne, 2006; Beautrais & Fergusson, 2006; Coupe, 2000).

In *the United States*, American Indians and Alaskan Natives of all ages have the highest rates of violent death among all ethnic groups (31.4 per 100,000 in 2005) and suicide is the second leading cause of death among the young American Indians in the 15-24 year age group, and the third leading cause of death in the 10-14 year age group (LaFromboise & Lewis, 2008). Suicide risk is especially high among American Indian and Alaska Native young males (Echohawk, 1997; 2006). Over the period of 1999-2003 in

Alaska, suicide was the leading cause of death among Alaska Natives aged 15-24 (Wexler, Bertone-Johnson, & Fenaughty, 2008).

In *Canada* in 2000, the First Nation suicide rate was twice the overall Canadian rate (24 per 100,000 v. 12 per 100,000; respectively) and from 1999 to 2003, the suicide rate in Inuit regions averaged 135 per 100,000 - 10 times the national rate (Kirmayer et al., 2007). Indigenous suicide in Canada is most prevalent among young people (mostly males), and in 2000, 22% of all youth deaths (10-19 year-olds) and 16% of all early adults deaths (20-44 year-olds) were due to suicide (Kirmayer et al., 2007).

Indigenous suicides often occur in clusters. A study of suicide in a South-western American Indian tribe of 12,000 individuals found a cluster of seven suicide deaths and attempts by hanging in the period of 40 days, all deaths among young people aged 13 to 28 years (Wissow, Walkup, Barlow, Reid, & Kane, 2001). Wilkie, Macdonald, and Hildahl (1998) reported a suicide cluster in an isolated Canadian Manitoba First Nations community of approximately 1,500 individuals where in period of three months, six young people aged 14 to 25 committed suicide and nineteen aged 12 to 23 attempted suicide (mostly by hanging).

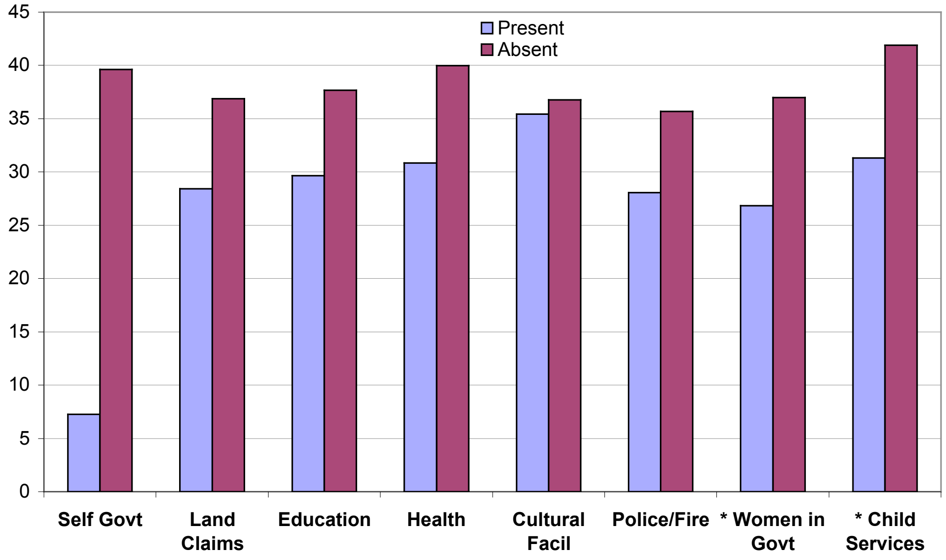
Alcohol has been identified as a major risk factor for suicide in Indigenous people. In Canada, a study on Indigenous suicide in British Columbia found that 74% of suicide victims were intoxicated at time of death, and alcohol was detected in 80-90% of Indigenous people in Alberta who died by suicide (Royal Commission on Aboriginal Peoples, 1995). In the United States, American Indians have the highest prevalence of substance dependence and abuse among the racial and ethnic groups (McFarland, Gabriel, Bigelow, & Walker, 2006) and a study on suicide among American Indian decedents in New Mexico found alcohol in 69% of suicide victims (May et al., 2002).

Individual risk factors, including psychopathology, alcohol and drug abuse, history of childhood trauma, abuse and neglect, interpersonal problems and other negative life events, hopelessness and inability to solve problems and cope with stress play an important role in suicide in Indigenous peoples (e.g. Enns, Inayatulla, Cox, & Chayne, 1997; Kirmayer et al., 2007; LaFromboise, Meddoff, Lee, & Harris, 2007; Strickland, Walsh, & Cooper, 2006). It is impossible to consider Indigenous suicide without taking into consideration socio-historical factors and issues of cultural identity and continuation in Maori (Beautrais et al., 2006; Coupe, 2005; Skegg, Cox, & Broughton, 1995), American Indians and Alaska Natives (EchoHawk, 1997; LaFromboise & Meddoff,

2004) and the First Nation peoples in Canada (Chandler & Lalonde; 1998; Leenaars, 2006).

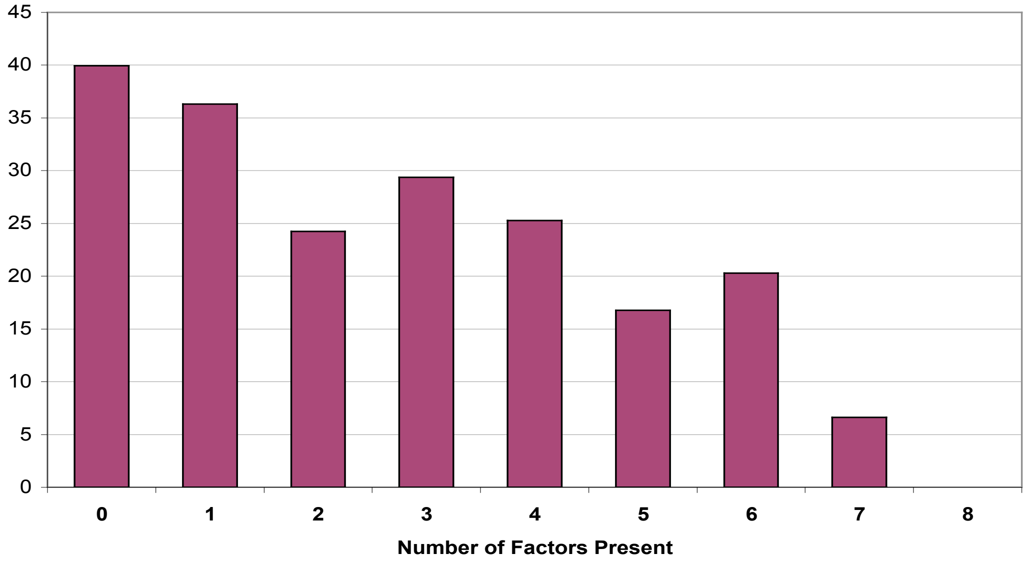
Indigenous suicide and "collective despair, or collective lack of hope" (Royal Commission on Aboriginal Peoples, 1995) has been related to persistent social disadvantage, cultural and social exclusion (Hunter & Harvey, 2002; Hunter & Milroy, 2006), breadown of cultural continuity (Chandler & Lalonde, 1998; Chandler & Lalonde, in press) and lack of cultural identity (Coupe, 2005). Chandler and Lalonde (1998) applied the concept of cultural continuity to explain the significant differences in incidence of youth suicide among different groups of the First Nation people in Canada: "like other potential sources of continuity and discontinuity, cultures too appear to be double-edged swords. At least when they tended to outlive the people who populated them, cultures offered a more 'mythic' time-frame that could be relied on to lend a certain age to things. (...) In other times and places, cultures appear to be more a part of the problem than the solution. Certainly this appears to be the case with the various cultures that make up BC's [British Columbia] First Nations. Here, in addition to all those factors that ordinarily work to undermine cultures and promote their 'natural' deaths, the massed forces of government have also actively disassembled aboriginal culture as an explicit matter of official policy" (Chandler & Lalonde, 1998; p. 7).

Figure 1. Community factors and suicide rate (per 100,000).
(Courtesy: Michael Chandler, University of British Columbia)



Apparently, communities' efforts to rebuild, preserve or reconstruct their cultures by taking control over important areas of life have a protective impact on youth suicide. In British Columbia, Chandler and Lalonde (1998) found an inverse correlation between the number of cultural continuity and identity indicators (including land claims, self-government, community control over education system, health services, cultural facilities, police and fire services) and suicide rates[11] (Figure 1 and Figure 2).

Figure 2. Overall suicide rate (per 100,000) by number of community factors.
(Courtesy: Michael Chandler, University of British Columbia)



Suicide Prevention in Indigenous Peoples in New Zealand, Canada and the United States

There seems to be more research and published literature on suicide prevention in Indigenous peoples outside Australia, especially in the United States and Canada, than about suicide prevention for Aboriginal and Torres Strait Islander Australians. Nevertheless, the knowledge regarding the effectiveness of interventions for the American Indians, Alaska Natives and the Aboriginal Canadians is limited.

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[11] An expert in suicide and suicide prevention in Indigenous Australians, Professor Ernest Hunter, has observed that "several years ago one of the authors of the Canadian research (Chris LaLonde) came to Cairns (and to Yarrabah) on sabbatical and we were interested to know if the research undertaken in British Columbia could be replicated in Australia. In fact, it probably cannot. What passes as 'control' in Indigenous Australia is of a very different nature to the experience of Aboriginal Canadians. Pervasive welfare dependence, the demise of ATSIC, the vulnerability of community controlled health services, the Commonwealth intervention in the Northern Territory … all make clear that there are very significant limits to Indigenous control and autonomy in Australia" (Hunter, in press).

A comprehensive review of suicide prevention programs in communities of the American Indians and Alaska Natives in the *United States* showed that many programs are developed by the tribes themselves (Middlebrook, LeMaster, Beals, Novins, & Manson, 2001). The majority of programs are local grass-roots initiatives, informal and independent of any centralised planning or control, and relatively few are evaluated and reported in the published literature. The review identified nine programs, including five suicide-specific programs[12] and four programs addressing related mental health and wellbeing issues, such as alcohol and drug abuse and teen pregnancy[13]. These programs in varying degrees addressed the generic factors associated with suicide (i.e. stress, depression, and hopelessness) and culture-specific factors relevant to Indigenous peoples, such as loss of ethnic identity and cultural and spiritual development, cultural confusion and acculturation.

The review led to rather disappointing conclusions: "information on the effectiveness of suicide preventive intervention programs among American Indians/Alaskan Native communities is scarce. There are few descriptions of programs in the literature and even fewer with any type of evaluation effort. (…) As a result of constraints or omissions [in program design and implementation], the effectiveness of the programs cannot be determined. In many cases, the reported effectiveness of the programs is impressionistic. (…) Because many of the programs were developed for the particular communities in which they were implemented, the generalizability of the results is somewhat limited; however, core program components can be tailored to other AI/AN communities, because many of the basic risk factors (e.g., age, family disruption, school conditions) cut across communities. (…) The absence of formal proactive evaluation is indicative of the majority of AI/AN programs that have been reported in the literature. As a result, programs may be implemented that have not been shown to be effective for the AI/AN communities that they are meant to help. The necessity of identifying programs proven to be effective is evident when one considers the limited amount of funding available" (Middlebrook et al., 2001; p. 140).

In *Canada*, the Advisory Group on Suicide Prevention (2003) found an absence of rigorously evaluated studies and serious gaps in knowledge regarding effectiveness of

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[12] Zuni Life-Skills Development Curriculum, Wind River Behavioral Health Program, Tohono O'odham Psychology Service, Western Athabaskan 'Natural Helpers' Program, and Indian Suicide Prevention Center.

[13] Blue Bay Healing Centre, Acoma-Canoncito-Laguna Adolescent Health Program, Rainbow Lodge Alcohol Recovery Program, and Positive Reinforcement in Drug Education Program.

suicide prevention programs developed for Indigenous people. Based on an earlier review of evidence (Kirmayer, Boothroyd, Laliberté, & Laronde Simpson, 1999), the report identified twenty nine suicide prevention and mental health promotion programs developed specifically for Aboriginal populations or modified to meet their needs. Nine of the programs[14] were recommended as "promising or particularly appropriate models for Aboriginal communities who wish to use a pre-existing program" (Advisory Group on Suicide Prevention, 2003; pp. 43-44).

A more recently published report *Suicide among Aboriginal People in Canada* (Kirmayer et al., 2007) presents a more comprehensive and updated list of promising suicide prevention programs with a focus on Aboriginal communities[15]. Each of these programs is either (1) created or driven by the community or (2) adapted by the community in part or as a whole or (3) intended to mobilize the community toward development or implementation of own prevention initiatives. These programs are ongoing, wide-reaching, include an evaluation component, and information about the programs is easily accessible via the Internet or through contact organisations.

The *Special Report on Suicide among Aboriginal People* by the Canadian Royal Commission on Aboriginal Peoples (1995) concluded that only "a comprehensive approach to suicide prevention has any hope of changing the existing picture. A comprehensive approach must include plans and programs at three levels of intervention: (1) those that focus on building direct suicide crisis services, (2) those that focus on promoting broadly preventive action through community development, and (3) those that focus on the long-term needs of Aboriginal people, for self-determination, self-sufficiency, healing, and reconciliation within Canada" (p. 75). The Canadian Advisory Group on Suicide Prevention (2003) suggested a number of specific guidelines for Aboriginal suicide prevention programs, which seem highly relevant to suicide prevention and social and emotional wellbeing in Aboriginal and Torres Strait Islander Australians, and thus are presented in Table 3.

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[14] Jicarilla Mental Health and Social Services Program, Community-Based Suicide Prevention Program, Miyupimaatisiiuwin Wellness Curriculum, Let's Live!, Life Skills Training, Programme d'entraide par les pairs (Peer Support Program), Native Parenting Program, Family Workshop: Parents and Problems Parenting Program, and Multimedia CD-ROM: Mauve.

[15] Applied Suicide Intervention Skills Training (ASIST), 5-Day Suicide Prevention Training for Aboriginal Communities, White Stone: Aboriginal Youth Suicide Prevention Training for Youth Educators, Community-Based Suicide Prevention Program, Zuni Life Skills Development Curriculum, Jicarilla suicide prevention program, and Northwest Territories Suicide Prevention Training.

Table 3. Guidelines for Aboriginal suicide prevention programs in Canada (Advisory Group on Suicide Prevention, 2003).

1. Programs should be locally initiated, owned and accountable, embodying the norms and values of the local/regional First Nations culture;
2. Suicide prevention should be the responsibility of the entire community, requiring community support and solidarity among family, religious, political or other groups. There should be close collaboration between health, social and education services;
3. A focus on the behaviour patterns of children and young people (up to their late 20s) is crucial. This requires involvement of the family and the community;
4. The problem of suicide must be addressed from many perspectives, encompassing biological, psychological, socio-cultural and spiritual dimensions of health and wellbeing;
5. Programs that are long-term in focus should be developed along with “crisis” responses;
6. Evaluation of the impact of prevention strategies is essential.

In *New Zealand,* the national suicide prevention strategy (Ministry of Health, 2008) includes a Maori component and recommends implementation of culturally appropriate initiatives aiming to reduce the incidence of suicide, especially among young people, and increase health and wellbeing in the Maori population. Such initiatives should be tailored to meet the needs and expectations of the Maori people and should be based on the concepts of health (*hauora*) and support for Maori families to achieve maximum health and wellbeing (*whänau ora*). Unfortunately, we were not able to identify any literature reporting on the effectiveness of suicide prevention programs for the Maori population.

Searching for Solutions: Prevention of Suicide in Indigenous Australians

As presented in detail earlier in this Report, suicide is a cause of significant loss of life in Aboriginal and Torres Strait Islander communities across Australia, especially among young males in their twenties and thirties, and over the last decade it has started to take its toll among Indigenous children and adolescents. Suicide deaths in communities often take place in public places, and due to the close-knit social structure of communities, the victims are known to others. Suicides often happen in "waves" and against the background of other premature deaths due to poor general health, accidents, and interpersonal violence, including domestic violence. In the aftermath of a suicide, the communities are left with the terrifying question "who will be next?", feelings of guilt and inadequacy ("what's wrong with us"), and due to lack of services, are bereft of help and support to cope with grief and loss. The risk of accepting suicide as a "normal reaction" to problems and an effective way of expressing anger and emotionally "blackmailing" the environment, underscores the need for postvention.

Despite the general agreement that "suicide among Indigenous Australians is a problem" and "something has to be done", there is a dearth of suicide prevention programs for Indigenous Australians for which there are rigorous evaluations and evidence for effectiveness (and for which there is accessible literature). The lack of programs and evaluations is partly related to insufficient funding and resources, lack of services and remoteness, but not knowing what should and could be done contributes to the confusion. Cultural and historical differences between communities make it often impossible to use or adapt programs developed in different locations. Suicide remains a cultural taboo subject in some communities and this may stop people from opening the subject and seeking help. Other communities actively seek help after suicide and appreciate the normalization of the grieving experience offered by suicide prevention and postvention programs.

The Western (over)medicalised and (over)individualistic paradigm sees depression as the major contributor to suicide and tends to focus on individual interventions and treatments. However, Indigenous suicide prevention requires a broad approach and understanding, including consideration of social, historical and political factors. Both reviewed literature and experts in the field stress that *suicide prevention for Indigenous Australians has to have a broad community and family focus*.

A number of suicide prevention and social and emotional wellbeing programs applicable to prevention of suicide have been initiated, developed and implemented either by members of communities themselves or in collaboration with mainstream services and organizations. Appendix 2 presents programs we were able to identify through the literature search and through consultations with experts in the field. Some of the programs were developed especially for Indigenous communities and individuals and used in a number of communities (e.g., Family Wellbeing Empowerment Program, *Toughin' it out* pamphlet). Others are mainstream suicide prevention initiatives modified to suit the needs and characteristics of Aboriginal and Torres Strait Islander people, for instance, Suicide Awareness for Aboriginal Communities and Applied Suicide Intervention Skills Training (ASIST). Some of the initiatives focus on suicide prevention and the aftermath of suicide (e.g., Indigenous community suicide intervention forums, *Healing Our Way* self-help resource) while others are more general and tackle a range of issues, including domestic violence, substance abuse, boredom and lack of meaningful activities in the communities (e.g., Family Wellbeing Empowerment Program). *Mental Health First Aid* (MHFA), a training course for members of the public teaching them to recognise and give assistance in mental health crisis situations has been recently adapted to serve Indigenous Australians, i.e. *Mental Health First Aid for Aboriginal and Torres Strait Islander Communities* (Kanowski, Kitchener, & Jorm, 2008). Given the promising MHFA outcomes and evaluations in the general population (Kitchener & Jorm, 2006) and its great potential in improving social and emotional wellbeing and preventing suicide in Indigenous Australians, the program is mentioned here, although it is not listed in Appendix 2 - no published materials regarding its implementation in Asutralian Indigenous communities were identified.

There is evidence of effectiveness available for some of the initiatives, either based on anecdotal or clinical evidence from individuals or organisations that run the programs (e.g. Suicide Awareness for Aboriginal Communities, ASIST) or from structured process evaluation (e.g., Family Wellbeing Empowerment Program). In general; however, suicide prevention initiatives for Indigenous Australians are plagued by the same evaluation dilemmas regarding the type of evaluation (i.e. process v. outcome), outcome measures and methodology, as *programs run in the other populations in Australia and* *internationally.* Despite a remarkable number of such initiatives in Australia (Headley et al., 2006; Robinson et al., 2006) and in other countries (Beautrais et al., 2007; Goldsmith, Pellmar, Kleinman, & Bunney, 2002), there is limited knowledge regarding their effectiveness.

Unfortunately, some prevention programs are implemented despite lack of any evidence of their effectiveness and in some cases there are strong claims regarding effectiveness of approaches which have never been properly evaluated or might even be harmful, such as no-suicide contracts in clinical practice. On the positive side, the situation is not totally bleak and some types of interventions designed for the general population or selected high risk groups seem to be effective (at least in certain environments) (Beautrais et al., 2007; Goldsmith et al., 2002; Mann et al., 2006). There is an overall consensus that physician education in recognition and treatment of depression, the training of gatekeepers, and limiting access to lethal means of suicide, have an impact on suicide rates. Restricted *availability of lethal means* of suicide, such as guns, toxic substances, high bridges and rail tracks, is frequently linked to significant reductions in overall suicide rates. For instance, in the 1960s in Australia restriction of access to barbiturates was associated with a 23% decline in suicide using this method without an increase in the use of other means (Oliver & Hetzel, 1972).

Other approaches to suicide prevention in the general population or in selected groups at elevated suicide risk appear promising, although there is lack of strong scientific evidence-base to unequivocally prove their effectiveness (Beautrais et al., 2007; Goldney, 1998). These include *clinical interventions* for people with a history of suicide attempts, especially interventions aiming at improved treatment compliance and more efficient follow-up. One aspect of this relates to antidepressant use; where increased prescribing of selective serotonin reuptake inhibitors (SSRIs) has occurred, suicide rates have appeared to fall. However, autopsy studies of people prescribed antidepressants and who later suicide, often show a complete absence of antidepressants in the system prior to death, and recent research has disputed the direct causal effect on suicide rates, noting that rates began to fall prior to the onset of increased use of antidepressants (Reseland et al., 2006). Psychotherapy and psychosocial treatments (eg Cognitive Behavioural Therapy or Dialectical Behavioural Therapy) for mental disorders have also been shown to reduce suicidal behaviour (Brown et al., 2005). Recent work suggests the impact of psychotherapy in community or population studies could be the availability of psychotherapists (as a proxy for relevant healthcare services) in a community as much as the actual therapy (Kapusta et al., 2009). This work may underpin our recommendation about developing a critical mass of Aboriginal mental health workers in a community.

A wide range of *general population and community-based programs,* such as easy access to crisis centres and counselling, public awareness and education, mental health literacy programs, screening for depression and elevated suicide risk in educational and primary care settings, school-based competency and skill enhancement programs, and support for suicide survivors and communities bereaved by suicide also may lead to positive outcomes; however, there is insufficient or contradictory data regarding their impact on actual rates of suicide.

There is strong evidence linking media reports of suicide to increased suicide rates in Australia (Pirkis et al., 2006) and internationally (Pirkis & Blood, 2001), and decreasing the level of media reporting of suicides and encouraging a responsible covering of the subject is a promising approach to suicide prevention (Fu & Yip, 2008; Mann et al., 2006). Consequently, *national or local guidelines for responsible coverage of suicide* have been developed internationally, including Australian “A resource for media professionals” (Commonwealth Department of Health and Aged Care, 2004). The National Action Plan for Promotion, Prevention and Early Intervention for Mental Health 2000 (Commonwealth Department of Health and Aged Care, 2000) has also identified the Australian media as a key strategic group and recommends national-level action to develop a media strategy to promote positive messages around social and cultural diversity to reduce prejudice and discrimination towards Indigenous Australians. Such initiatives could support suicide prevention in Indigenous Australians.

One of the most effective, comprehensive, population-based, prevention programs is the US Air Force suicide prevention initiative for active duty military personnel started in 1996 (Knox et al., 2003). This program aims at reducing suicide risk factors and enhancing protective factors, including changing policies and social norms, proving awareness of mental heath issues and reducing the stigma of help-seeking. Implementation of the program in late 1990s was associated with a 33% decline in suicide rate as well as reductions in levels of other related outcomes, such as accidental deaths, homicide and incidents of domestic violence among the Air Force personnel. There are 11 sub-programs within this program, and at this point it is not clear whether it is the help-seeking aspect or the resilience development aspects that are of more importance, or whether the total package is necessary to create change.

This literature review began with the intent to consider the development (or redevelopment) of social and emotional wellbeing as a way forward to reduce the possibility of suicide in Indigenous Australian communities. Unfortunately, the evidence for large-scale population approaches to building protective factors toward reducing suicidality, is still in its early stages.

Social and Emotional Wellbeing in Indigenous Australians

Suicide prevention is an integral part of the holistic view of physical and mental health and social and emotional wellbeing of Indigenous Australians. The Indigenous concept of health is multi-dimensional, embraces all aspects of living and points out the importance of survival in harmony with the environment, including good relationships between families and communities, strong culture, sense of trust, belonging, and participation, and healthy relationships with the land (Grieves, 2007; Kowal, Guntorpe, & Bailie, 2007; Northern Territory Aboriginal Health Forum Emotional and Social Wellbeing Working Party, 2003). According to Kowal et al. (2007), "increase in interest in this area has been in response to the efforts of Indigenous leaders to raise the profile of mental health/Emotional and Social Wellbeing on the national policy agenda, through what has been called the Indigenous Mental Health Movement" and "the term 'Emotional and Social Wellbeing' is currently the term used within Aboriginal and Torres Strait Islander health policy to represent an area that includes mental health" (p. 2). The National Aboriginal Health Strategy developed in 1989 with a significant input of Aboriginal and Torres Strait Islander people defined heath as:

> *"Not the physical wellbeing of the individual; but the social cultural wellbeing of the whole community. This is a whole of life view and it includes a cyclical concept of life. Health care services should strive to achieve the state where every individual is able to achieve their full potential as human beings, and thus bring about the total wellbeing of their community."* (National Aboriginal Health Strategy Working Party, 1989; p. X)

The seminal National Consultancy Report *Ways Forward* observed: "Aboriginal people emphasised the strong relationship of mental health and wellbeing to physical health and saw loss of mental wellbeing as contributing in a major way to the poor physical health and health outcomes of Aboriginal people. There is much to suggest that this is indeed a further significant and major contributor to the adverse and deteriorating state of the health of Aboriginal people" (Swan & Raphael, 1995; p. 7). The document defined the concept of Aboriginal and Torres Strait Islander health as:

> *"Holistic, encompassing mental health and physical, cultural and spiritual health. Land is central to wellbeing. This holistic concept does not merely refer to the 'whole body'*

> *but in fact is steeped in the harmonised interrelations which constitute cultural wellbeing. These inter-relating factors can be categorised largely as spiritual, environmental, ideological, political, social, economic, mental and physical. Crucially, it must be understood that when the harmony of these interrelations is disrupted, Aboriginal ill health will persist"* (Swan & Raphael, 1995; p. 19).

The *National Strategic Framework for Aboriginal and Torres Strait Islander People's Mental Health and Social and Emotional Wellbeing 2004-2009* (National Aboriginal and Torres Strait Islander Health Council, 2004a) uses the definition of health developed by the National Aboriginal Health Strategy (National Aboriginal Health Strategy Working Party, 1989) presented above, and "recognises that achieving optimal conditions for health and wellbeing requires a holistic and whole-of-life view of health, referring to the social, emotional and cultural wellbeing of the whole community" (p. 3). The Framework is based upon nine guiding principles of *Ways Forward* (Swan & Raphael, 1995; Table 4) and stressed two additional dimensions applicable to Aboriginal and Torres Strait Islander health and wellbeing: the legacy of history and uncertainty about the future.

Table 4. Guiding principles of the *National Strategic Framework for Aboriginal and Torres Strait Islander People's Mental Health and Social and Emotional Wellbeing 2004-2009* (National Aboriginal and Torres Strait Islander Health Council, 2004a; Swan and Raphael, 1995).

1. Aboriginal and Torres Strait Islander health is viewed in a holistic context, that encompasses mental health and physical, cultural, and spiritual health. Land is central to wellbeing. Crucially, it must be understood that when the harmony of these interrelations is disrupted, Aboriginal and Torres Strait Islander ill health will persist.
2. Self determination is central to the provision of Aboriginal and Torres Strait Islander health services.
3. Culturally valid understandings must shape the provision of services and must guide assessment, care, and management of Aboriginal and Torres Strait Islander peoples health problems generally and mental health problems in particular.
4. It must be recognised that the experiences of trauma and loss, present since European

invasion, are a direct outcome of the disruption to cultural wellbeing. Trauma and loss of this magnitude continues to have inter-generational effects.

5. The human rights of Aboriginal and Torres Strait Islander peoples must be recognised and respected. Failure to respect these human rights constitutes continuous disruption to mental health, (versus mental ill health). Human rights relevant to mental illness must be specifically addressed.
6. Racism, stigma, environmental adversity and social disadvantage constitute ongoing stressors and have negative impacts on Aboriginal and Torres Strait Islander peoples' mental health and wellbeing.
7. The centrality of Aboriginal and Torres Strait Islander family and kinship must be recognised as well as the broader concepts of family and the bonds of reciprocal affection, responsibility and sharing.
8. There is no singe Aboriginal and Torres Strait Islander culture or group, but numerous groupings, languages, kinships, and tribes, as well as ways of living. Furthermore, Aboriginal and Torres Strait Islander peoples may currently live in urban, rural or remote settings, in urbanised, traditional, or other lifestyles, and frequently move between these ways of living.
9. It must be recognised that Aboriginal and Torres Strait Islander peoples have great strengths, creativity and endurance and a deep understanding of the relationship between human beings and their environments.

According to the Framework, "the first dimension is the *historical context and its legacy* that underlies the high levels of morbidity and mortality in Aboriginal and Torres Strait Islander communities and continues to contribute to the ongoing difficulty in relationships and Reconciliation. The final dimension is the *future uncertainty* surrounding the unresolved issues of land, control of resources, cultural security, the right of self-determination and sovereignty, as these issues have been recognised as contributing to health and wellbeing and reducing health inequalities in Aboriginal and Torres Strait Islander peoples within the international arena" (National Aboriginal and Torres Strait Islander Health Council, 2004a; p. 7).

Grieves (2007) stressed that the Aboriginal wellbeing is "much more than a health issue" and observed that "the term 'wellbeing' is an English term adopted to explain the meaning of an Aboriginal concept that goes far beyond welfare. Unfortunately, the original Indigenous concept is not adequately explained by the term 'wellbeing'. Professor Judy Atkinson[16] has explained: "There is no word in Aboriginal languages for Health. The closest words mean 'wellbeing' and wellbeing in the language of Nurwugen people of the Northern Territory means 'strong, happy, knowledgeable, socially responsible, to take a care, beautiful, clean', both in the sense of being within the Law and in the sense of being cared for and that suggests to me that country and people and land and health and Law cannot be separated. They are all One and it's how we work with and respect each other and how we work with and respect the country on which we live that will enable us to continue to live across generations" (Grieves, 2007; p. 20).

These ways of thinking are difficult for the Western mind to grasp. Historically, we have understood for thousands of years that a healthy mind exists in a healthy body (*mens sana in corpore sano*) and lately health practitioners have grappled with health from a bio-psycho-social perspective. However, this has very rarely included a spiritual dimension. The strength of the connection to land (place) and to forefathers (family history) has not been stressed even if the social dimension does include the family system (often limited in western culture to the immediate family or at most three generations, and certainly not the same as Aboriginal and Torres Strait Islander kinship).

The implications of these are that non-aboriginal health practitioners clearly need extensive training in cultural awareness prior to working with Indigenous people, or in Indigenous communities. Conversely, while this is a minimum requirement, a better long term strategy is to train large numbers of Aboriginal and Torres Strait Islander people in health development, recognition of health problems and disorders and treatment approaches or management.

In some ways some of the early discussions on social and emotional wellbeing in Indigenous Australians set up a situation for which there have been difficulties in finding solutions. We cannot turn back the clock on colonisation, immigration and annexure,

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[16] "Healing Relationships between People and Country" an address given at the Wollumbin Dreaming Festival 2002.

genocide, “Stolen Generations”, and artificial community. It is important that as a nation, Australians have been able to say “Sorry” (February 13th, 2008) and it is to be hoped that this can begin a process of reconciliation and healing, and genuinely begin actions towards “Ways Forward”.

Despite wide recognition and acknowledgment of importance of the Indigenous holistic concept (or perhaps an ‘extended’ conception) of health and social and emotional wellbeing, there is lack of consensus regarding its operationalisation and measurement (Kowal et al., 2007). To-date several tools have been developed or adapted to be applied to the Indigenous people in Australia, including the Kessler Psychological Distress Scale (ABS, 2006), the Medical Outcome Short Form Health Survey/SF-36 (ABS, 2006), the Negative Life Events Scale (Kowal et al., 2007), the Strengths and Difficulties Questionnaire (SDQ) (Zubrick & Lawrence, 2006), the Westerman Aboriginal Symptom Checklist-Youth (Westerman, 2002b), and the Western Australian Aboriginal Child Health Survey (Zubrick & Lawrence, 2006).

Many of these tools were developed for use in a particular population, for example, children and adolescents (e.g. Westerman, 2002b) and to measure selected dimensions of wellbeing, for example, the impact of stressful life events (Kowal et al., 2007). There is a continuing need to further develop (or adapt) holistic, reliable and culturally appropriate measures, such as the *Hua Oranga* scale for mental health outcomes specifically in the Maori population in New Zealand (Kingi & Durie, 2001). In the United States, there has been an interesting attempt (Graham, 2002) to find connections between the American Indian relational worldview perspective to wellness and healing (Cross, Earle, Echo-Hawk Solie, & Manness, 2000) and the Western concept of reasons for living measured by the Reasons for Living Questionnaire (Linehan, Goldstein, Nielsen, & Chiles., 1983) and the Reasons for Living Inventory for Adolescents (Osman et al., 1998).

Unfortunately, to-date there is a paucity of studies and program evaluations across Australia to indicate which initiatives and frameworks are effective in development of social and emotional wellbeing in Indigenous Australians (and applicable to suicide prevention), including projects addressing depression (Leggett & Krom, 2005; Thomson, Krom, Trevaskis, Weissofner, & Leggett, 2005). A systematic review of international literature on mental health promotion in Indigenous populations, including Aboriginal and Torres Strait Islanders, Aboriginal Canadians, Americans Indians, Alaska Natives, and African Americans (Clelland, Gould, & Parker, 2007) identified a number of interventions[17]. These included programs promoting mental health, mental health literacy, quality of life and resilience, initiatives targeting increased social support and community connectedness, parenting and family functioning skills programs, and initiatives aiming at reduction of racism, oppression and discrimination.

The conclusions of the review were somewhat disappointing: due to scarcity of published material and paucity of well-conducted evaluations, "it is problematic to draw conclusions as to the efficacy of such interventions" (Clelland et al., 2007; p. 214). It was quite clear; however, that to-date programs focusing on individuals outnumbered interventions addressing the broader social and policy contexts and many of the programs were community driven. Such initiatives involved Indigenous people in design and implementation of programs to make them culturally relevant and appropriate and to ensure the community control over the initiative.

Suicide Prevention and Social and Emotional Wellbeing in Indigenous Australians

Prevention of suicide in Indigenous Australians is closely related to the holistic concept of health and wellbeing. Indigenous suicide has its origins in individual, family, community and transgenerational risk factors as well as the challenging and difficult every-day living conditions rooted in the historical and cultural trauma, including the history of genocide and the on-going racism and discrimination. Only a holistic and comprehensive approach to suicide prevention targeting a range of factors, including better services and care for individuals, families and communities at risk of self-harm, community development and empowerment, strengthening of Aboriginal and Torres Strait Islander culture and identity, and healing of the individual and collective traumas and loss, can lead to positive outcomes and save lives of Indigenous Australians.

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[17] The review included the Family Wellbeing Empowerment Program and Participatory Action Research implemented in a number of Indigenous communities in Northern Queensland (Tsey et al. 2004a, 2004b, 2005, 2007). The project outcomes are promising: "the use of a long-term (10-year) community research strategy focussing directly on empowerment has demonstrated the power of this approach to facilitate Indigenous people's capacity to regain social and emotional wellbeing and begin to rebuild the social norms of their families and community" (Tsey et al., 2007; p. S34). The description of the project and evaluation summary is presented in Appendix Two.

The on-going focus on problems in Indigenous communities, much fuelled by the media (Hunter, 1990b; Sheehan, 2001), makes it too easy to forget that Indigenous Australians are "exceptional survivors" (Merritt, 2007; p. 11)[18]. Moreover, "Aboriginal society has much to teach the rest of the world about sharing, caring, and human connections - about human survival and wellbeing. It is ironic that these 60,000 years of collective wisdom with respect to mental health and human and ecosystem interdependencies are ignored at the same time that biomedical health sciences are just discovering the importance of supportive and caring connections between people" (Reser, 1991; p. 281).

This section of our Report identifies promising venues for suicide prevention in the context of social and emotional wellbeing in Indigenous Australians which we identified through the review of policies, literature and consultations with experts in the field. These include (1) resilience in Indigenous Australians, (2) early development, family and school-based interventions for Indigenous children and youth, (3) Indigenous Australian culture and identity, and (4) development of Indigenous workforce and services.

Resilience in Indigenous Australians

Resilience can be defined as a dynamic process based on an interaction between risk and protective factors, both internal and external to the individual, which modify the effects of an adverse life event (Rutter, 1985; 1987) and the "personal qualities that enable an individual to thrive in face of adversity" (Connor & Davidson, 2003; p. 76). Resilience is a multidimensional individual characteristic which varies with time, age, gender, culture and context; and it changes depending on life circumstances to which the individual is exposed across the lifespan (Connor & Davidson, 2003). Resilience can be understood as an outcome, i.e. the maintenance of social and functional competence and good mental health in face of adversity, or as a process – how an individual adapts to the

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[18] A conclusion of a study of wellbeing indicators for Native American children and youth seems highly applicable to the Australian situation: "Native Americans are still discussed in the literature from a deficit and/or problem perspective. (…) The citations that came up most often [in an Internet search] were generally terms describing problems in the individual, family and/or community. Common topics (…) were alcoholism, suicide, gangs, child abuse and neglect, child sexual abuse, violence, boarding school, drugs, substance abuse, homicide, and poverty. Few, if any, strengths or positive indicators of behaviour were listed. It is time for this situation to change and for strengths to be associated with Native Americans" (Goodluck, 2002; pp. 14-15). To paraphrase the last sentence, "it is time for this situation to change and for strengths to be associated with Indigenous Australians".

difficult conditions. Three broad categories of factors strengthen personal resilience: individual (e.g., personal communication skills, intelligence), social (e.g., supportive families), and societal (e.g., socio-economic status, supportive communities) (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003).

Resilience is frequently mentioned in the context of child and adolescent development, mental health promotion, prevention and early intervention and suicide prevention in both Indigenous and non-Indigenous Australians (Commonwealth Department of Health and Aged Care, 2000; Commonwealth of Australia, 2007). To the best of our knowledge, the concept of resilience has not been studied in the context of suicide prevention and social and emotional wellbeing in Indigenous Australians, although it has been applied to prevention of chronic offending in Indigenous youth (Zubrick & Robson, 2003). Merritt (2007) has even observed that "to date, the term resilience has been a construct based on Western knowledge" and called for development of "an Indigenous perspective on resilience" (p. 12). Moreover, "delving into what resilience is to Aboriginal people is important, but that it should not preclude or divert attention from efforts to address adversity. (…) Adversities arising from social justice and equality issues still need to be addressed" (Merritt, 2007; p. 12).

Indigenous resilience was studied in the American Indians and Aboriginal Canadians, especially in Indigenous adolescents (e.g. Burack, Blinder, Flores, & Fitch, 2007; LaFromboise, Hoyt, Oliver, & Whitbeck, 2006; LaFromboise & Medoff, 2004). In Indigenous populations the concept of resilience can be applied on both a community/nation level and an individual/personal level. In the former understanding of the word, "resilience in the face of adversity is not new to American Indian tribes [and other Indigenous peoples, including Indigenous Australians]. They have survived genocidal practices directed toward them, including a massive redistribution of people away from their homelands and the imposition of the reservation system. They withstood drastic changes in sociopolitical, cultural, and physical environments and the added stress from oppression and hostility. Through it all, many were able to adapt and overcome adverse circumstances" (LaFrombiose et al., 2006; p. 194).

On the individual level, Indigenous resilience can be understood as positive outcomes in face of adversity (Connor & Davidson, 2003) or absence of problem behaviours, for example substance abuse, and high levels of pro-social behaviour, such as good school performance (LaFrombiose et al., 2006). A study of resilience in

American Indian adolescents showed that a primary risk factor for low resilience was perceived discrimination and protective factors came from multiple contexts, including family, community, and culture (LaFrombiose et al., 2006). The high likelihood of pro-social outcomes was related to having a warm and supportive mother, perceiving community support, and exhibiting higher levels of enculturation, i.e. identification with American Indian culture, participation in traditional activities, and traditional spiritual involvement.

It can be hypothesised that certain features of the traditional culture shared by Indigenous Australians, the American Indians and the Aboriginal Canadians such as extended family, spirituality, and participation in traditional activities can serve as protective factors buffering against the negative consequences of adverse events on individual and community levels and supporting individual resilience (Dudgeon & Oxenham, 1989; Daly & Smith, 2005; Reser, 1991). An Australian study of self-harm among Indigenous and non-Indigenous sole parent females in urban state housing (Radford et al., 1999) provides some support for this hypothesis. Study results showed that Indigenous mothers were at lower risk of self-harm than their non-Indigenous counterparts, and their higher resilience might be related to greater family support and frequency of contact with relatives and "a stronger sense of resistance to, and acquired toleration of, long-term, inter-generational oppression of various kinds" (Radford et al., 1999; p. 83).

Early Development, Family and School-based Interventions for Indigenous Children and Youth

Families and schools seem to be the best settings for programs and interventions targeting resilience and wellbeing in Indigenous Australian children and adolescents (Craven & Bodkin-Andrews, 2006; Eckersley, Wierenga, & Wyn, 2006). There is accumulating evidence that programs for pregnant women and parents of young children, especially nurse home visiting programs, hold significant promise for improving children's life-course trajectories and for reducing development and health problems (Gluckman et al., 2005; Olds, Sadler, & Kitzman, 2007).

Hunter (2006) observed that "the effects of prenatal environmental factors (including social adversity) on the development of diseases including diabetes and hypertension later in life is well known. Similarly, from conception through infancy, neurological, cognitive, affective and social development is an interactive process between a phase-sensitive evolving system and the environment. This includes the 'embedding' of experience in biology through processes of selective activation and neural sculpting, and 'reciprocal, co-regulated emotional interactions'. Extensive developmental neurobiology research now also informs our understanding of social gradients in health. Indeed, it has been noted that 'the effects of these early developmental processes can be observed in the health and competence of populations'. Longitudinal studies demonstrate that failure to provide for early phase specific needs is consequential for the later development of serious emotional and behavioural problems, including violence" (pp. 9-10). [The original version of the quote was extensively referenced. We refer the reader to the original].

The Australian study *Footprints in Time: The Longitudinal Study of Indigenous Children* (LSIC)[19] which commenced Wave 1 interviews in April 2008 aims to improve the understanding of the diverse circumstances faced by Aboriginal and Torres Strait Islander children, their families, and communities and to provide a better insight into how a child's early years affect the way they develop and mature. Once completed, the study will provide a valuable data resource which can be used by Australian governments, researchers, service providers, parents and communities.

There are examples of promising school-based resilience enhancing, skill-building and suicide prevention programs for Indigenous youth in Canada and the United States (Kirmayer et al., 2007; LaFromboise & Lewis, 2008) and "youth skill-building programs have been applied to diverse adolescent prevention programs, especially in school-based settings. These programs have focused primarily on the enhancement of competence in youth development work (e.g., self-regulation), as well as the reduction of at-risk behaviours and the prevention of mental health problems. Outcome data from these prevention interventions have been promising, especially when coupled with parent and family training and support" (LaFromboise & Lewis, 2008; p. 346).

Indigenous Australian Culture and Identity

Destruction of culture and spirituality, and problems with identity and cultural continuation, a legacy of centuries of colonisation and genocide, are among the most

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[19] http://www.facsia.gov.au/internet/facsinternet.nsf/research/ldi-lsic_nav.htm

significant risk factors for suicide and other indicators of social and emotional ill health in Indigenous Australians (Tatz, 2001; Hunter, 1993), Maori in New Zealand (Coupe, 2005; Skegg et al., 1995), American Indians and Alaska Natives (Duran & Duran, 1995; Wexler, 2006) and Aboriginal Canadians (Kral, 1998).

Simultaneously, as Brady (1995) has pointed out, there is a great potential of "culture as treatment" and "culture in treatment". The Indigenous culture and identity has an enormous potential for strengthening the social and emotional wellbeing of Indigenous Australians (Brady, 1995; Pattel, 2007; Tse et al., 2005), including prevention of suicide (McCoy, 2007; Petchkovsky, Cord-Urdy, & Grant, 2007). Indigenous suicide prevention in New Zealand (Coupe, personal communication, July 2008), Canada (e.g. Jacono & Jacono, 2008) and the United States (e.g. Garroutte et al., 2003) based on traditional cultural knowledge and values underline the importance and high effectiveness of such an approach. However, culture in mental health promotion and suicide prevention must not be treated in a tokenistic way. Resnicow, Baranowski, Ahluwalla, and Braithwaite (1999) described two dimensions of cultural sensitivity: the surface structure and deep structure. "*Surface structure* involves matching intervention materials and messages to observable 'superficial' (thought nonetheless important) characteristics of a target population[20]. (…) The second dimension, *deep structure*, has received less attention and can be more elusive. Deep structure sensitivity requires understanding the cultural, social, historical, environmental and psychological forces that influence the target health behaviour in the proposed target population. Whereas surface structure generally increases the 'receptivity' or acceptance' of messages, deep structure conveys *salience*. Surface structure is a prerequisite for feasibility, whereas deep structure determines the efficacy or impact of a program" (Resnicow et al., 1999; pp. 11-12).

Aboriginal and Torres Strait Islander Australians need space to strengthen cultural continuity and identity, and to develop and follow their own wellbeing pathways. Strengthening of Indigenous Australian culture and identity can form a good basis for universal social and emotional wellbeing and suicide prevention programs, as

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[20] "For audiovisual materials, surface structure may involve using people, places, language, music, food, product brands, location and clothing familiar to, and proffered by, the target audience. Surface structure also includes identifying what channels (e.g., media) and settings (e.g., churches, schools) are most appropriate for del*i*very of messages and programs. With regards to cultural competence, or interpersonal sensitivity, this generally entails using ethnically-matched staff to recruit participants as well as to deliver and evaluate programs" (Resnicow et al., 1999; p. 11).

well as being an outcome indicator for effectiveness of programs. The traditional Aboriginal and Torres Strait Islander culture is imbued with natural protective and wellbeing factors, such as kinship networks and traditional support systems, spirituality, loving, caring, and trust (Reser, 1991). The Elders and traditional healers can play a very important role in strengthening of social and emotional wellbeing in Indigenous Australians (Westerman, 2004).

A qualitative health study exploring the role of Indigenous ceremonies (*kanyirninpa/*holding) in suicide prevention in desert communities in the southeast Kimberley region of Western Australia (McCoy, 2004; 2007) showed that "the desert value of *kanyirninpa*, especially as it is expressed across generations of men, offers one form of protection against that relational and social isolation often noted at the time of self-harm. As a social process, *kanyirninpa* protects young men because it is reflected in multiple and supporting relationships across and within generations. This can be particularly valuable for those who spend their teenage years, and sometimes beyond, exploring a high-risk pathway of autonomy. (…) What the social process of *kanyirninpa* reveals, as does also the research performed by Chandler [and Lalonde] with Native North Americans, is an important link between self-continuity and cultural continuity" (McCoy, 2007; p. S66).

The first step in the journey to effect a social and emotional wellbeing program to alleviate suicide and self-harm in Indigenous Australian communities is to stop disempowering intrusion into these wounded social spaces The imposition of understanding across cultures (however well intentioned) is based in a culturally embedded violence where only one culture is proposed as possessing ameliorative value. Identity and wellbeing are related and homeostatic features that differ greatly from culture to culture and from individual to individual; such differences are not problematic they are integral and essential to the nature of wellbeing. The imposition of common identity frameworks for wellbeing such as those founded in conceptions of the 'modern' and 'economic' is an epistemic violence that promotes divisive categorisation and risks further harm to communities and individuals (Nangala, 2008; Spivac, 2003; Sheehan et al., in press).

Culture is best described as a process that constitutes a third party to all engagements and an informative partner in all proposals. Therefore it is problematic to objectify culture as a set of qualities, features or factors which can be quantified in terms of similarity or difference then generically adjusted and broadly applied. Culture is a process that accompanies and informs life. In Indigenous Knowledge terms each culture is a companion to life for a group of people who live in a specific relationship to the landscape of that culture. This is often described as the holist nature of Aboriginal and Torres Strait Islander culture. This is not accurate; however, because western conceptions of holism do not apply well in this context. Aboriginal and Torres Strait Islander culture is better described as a relational patterning culture, because effective social structures build productive connections and generative separations into this whole through a knowledge management device known as kinship. Kinship patterns the people into their place or Country through instituting necessary and generative individuation into the social system. So Aboriginal and Torres Strait Islander culture is not an open field; each step in culture and cultural renewal must come from within the community charged with responsibility for these complex connections give reciprocal life through their culture to their Country and themselves (Nangala, 2008; Sheehan, 2004). Cultural approaches to social and emotional wellbeing require the development of methodologies that hand over of power to know to those who will experience the future of these communities.

Therefore, cultural solutions require the construction and maintenance of safe and supporting social spaces where groups may examine reactivate and restore their own understandings. In terms of the immense potential for violence, depression and self-harm in Aboriginal and Torres Strait Islander social places such supporting social spaces are essential because they may also afford individuals the psychic space required for positive self imaging and the internal amelioration that only Aboriginal and Torres Strait Islander culture can provide for Indigenous Australians. Clinicians and mental health professionals can be integral to these spaces (Garvey, 2007; Oliver, 2004; Sue, Ivey & Pedersen, 1996).

Homeostasis is the tendency of a living organism to maintain a balance that is both essential to and a feature of wellbeing. If we come to understand a community as a single entity formed by the homeostatic patterning of relations between individuals who are extended beings then we may perceive more effective and culturally relevant directions to promote social and emotional wellbeing. From this Indigenous Knowledge perspective the culture required to ameliorate conditions already exists as a process that is enfolded within community life. Personal and group identities in Aboriginal places regardless of how they may be distorted by social habitus or historic trauma transmission are essential everyday life giving structures. These existing features are the only potent basis for the ameliorative development of group and individual identity because they are the most generally acceptable and accessible avenues for finding a purpose in life for Aboriginal and Torres Strait Islander people (Sheehan, 2004; Tatz, 2004).

The approach suggested here is not a definitive examination of the features of Aboriginal and Torres Strait Islander identity as a basis for clinical or other health intervention but a more relational context specific approach based on:

- Activating group agency in Aboriginal and Torres Strait Islander places by providing and sustaining a support framework that prompts cultural understanding to articulate itself and become the primary agent in community and individual life.
- Engaging this community life to construct and maintain social and psychic spaces where effectively shared resolutions concerning future possibilities can be made.
- Sustaining the conditions that will support and nurture the positive identities and identifications that emerge from this group agency.
- Lifelong education that builds on emergent strengths enhances the knowledge and skills of Aboriginal and Torres Strait Islander people and empowers them to employ these understandings to live well and contribute positively to their contemporary contexts.
- Programs that recognise and respond to the view that the identity most significant for Aboriginal and Torres Strait Islander social and emotional wellbeing is one that emerges from each group as it addresses and ameliorates its own context.
- Evaluations that position all possible future programs as being responsible for sustaining the pre-eminence of Aboriginal and Torres Strait Islander cultural/community agency in Aboriginal community contexts.

In the contemporary Australian context the seven factors identified in Canadian studies as critical to the elimination of self-harm in Aboriginal communities seem impossible to achieve (Chandler & Lalonde, 1998; Tatz, 2004). Many Aboriginal communities live in syndemic conditions where connections between social domination, marginalisation and denial combine to ensure that stress, trauma, disease, lateral violence and poverty culminate in pathogenic social conditions (Hammill, 2008). In these places Aboriginal and Torres Strait Islander identity exists in a context where it is laden with trauma and engaged in a constant and impossible struggle for positive self-imaginings. Such is the burden of these conditions at various times especially for Aboriginal men that suicide may be judged to be the only rational and sovereign response available (Tatz, 2005).

The task of alleviating Aboriginal and Torres Strait Islander suicide requires that social spaces be established that are free from the impositions of dominant culture where Aboriginal and Torres Strait Islander identity has an opportunity to flourish and advance the inherent resilience potential of unfettered cultural and social agency.

Development of Indigenous Workforce and Services

As mentioned earlier in this Report, despite the high morbidity and mortality of Indigenous Australians, there is insufficient funding of health services serving this population and numerous barriers in access to health care (ABS, 2004; 2006; ABS&AIHW, 2008). Due to geographical remoteness, some of the Indigenous communities are exposed to "fly-in and fly-out" contact with services; in such situations there is lack of relationship between service providers and the community which contribute to frustration of community members and high burnout rates in health workers. The point of entry of Indigenous Australians into services, especially for mental health problems, is usually late and services focus more on crisis intervention, instead of health promotion, prevention and early intervention (Hunter, 1995).

It is necessary to ensure good access to services for all Australians, including appropriate and culturally safe services for Aboriginal and Torres Strait Islander staff and clients (Australian Health Ministers' Advisory Council, 2004), proper engagement of Aboriginal clients in mental health services (Farrelly, 2008; Vicary & Andrews, 2001; Vicary & Bishop, 2005; Westerman, 2004), and a deeper understanding of the impact of culture on mental health problems and treatment (Durie, 2004; Hunter, 2008; Janca & Bullen; 2003; Procter, 2005; Sheldon, 2001; Vicary & Westerman, 2004).

Simultaneously, while there is certainly room for service improvement, it is not the quantity or quality of mental health services that is at the root of the tragedy, and the solution is not 'more of the same' (Hunter, in press). According to Hunter (in press), "improvements in the services for Indigenous Australians are necessary and should occur as a matter of course in pursuit of social justice and equity. However, (…) without enabling Indigenous control (not simply an Indigenous veneer or tokenistic platitudes, but Indigenous expertise and effective governance), program and project-based, service 'solutions', regardless of sector, will only result in marginal gains". Development of Indigenous workforce and services is one of the venues for development of Indigenous control and cultural continuity, which as Canadian experience has shown, can be related to lower suicide risk (Chandler & Lalonde, 1998; Chandler & Lalonde, in press).

Currently, Aboriginal and Torres Strait Islander Australians are under-represented in health-related occupations and in graduate courses in health (ABS&AIHW, 2008). In 2005-06, despite comprising 1.9% of the general population over the age of 15 years, they represented only 1% of people employed in the health sector and only 1% of all students completing undergraduate courses in health- and welfare-related fields. Through search of literature and consultations with experts in the field we were able to identify a number of training programs for Indigenous mental health workers and services developed specifically for Indigenous Australians (Appendix Three). A detailed review and evaluation of such programs and services is beyond the scope of this Report; however, even a brief overview can give the reader an idea about the directions of Indigenous mental health force and service development and their outcomes (where information is available) in relation to social and emotional wellbeing in Indigenous Australians

Principles of Good Practice

This part of the Report presents Principles of Good Practice to guide practice in reviewing and funding suicide prevention programs related to development of social and emotional wellbeing in Indigenous Australians (Table 5). These guidelines are based on a review of the literature (Aboriginal Deaths in Custody Counselling Project, 1994, Adams & Danks, 2007; Advisory Group on Suicide Prevention, 2003; Clelland et al., 2007; Elliot-Farrelly, 2004; Farrelly, 2007; Henderson; 2003; Martin, Krysinska, & Swannell, 2008; National Health and Medical Research Council, 1996; Scougall, 1997; Stacey et al., 2007) and consultations with experts in the field.

Table 5. Principles of Good Practice.

Principle One: Community Empowerment
Principle Two: Recognition of Human Rights, Transgenerational Trauma, Loss and Grief
Principle Three: Development of Individual, Family and Community Social and Emotional Wellbeing
Principle Four: Acknowledgement and Recognition of Aboriginal and Torres Strait Islander Diversity and Importance of the Local Context
Principle Five: Direct Involvement of Community Members and Development of Local Workforce
Principle Six: Ensuring Program Sustainability and Organization Capacity
Principle Seven: Evidence- or Theory-Base for Programs
Principle Eight: Appropriate Program Evaluation
Principle Nine: "Researching Ourselves Back to Life"

Principle One - Community Empowerment

Working with Aboriginal and Torres Strait Islander communities needs to be based on community consultation and involvement at every stage of the project. Members of the community should "own the project": the initiative for program implementation should come from within the community and be based on the current needs identified by community members themselves. The community should decide how the program is implemented and evaluated, based on direct involvement of community members and development of local workforce (see Principle Five). Community members should be empowered and gain confidence by being involved in the project instead of "being told what to do (again)". This principle can be summarised in words of a popular slogan "*Nothing About Us Without Us*".

Appendix Two presents ethical guidelines for conducting research and working with Indigenous communities.

Principle Two - Recognition of Human Rights, Transgenerational Trauma, Loss and Grief

Working with Indigenous Australians requires recognition and acknowledgement of human rights issues, transgenerational trauma, loss and grief, both in the historical context of colonization and genocide (including the "Stolen Generations"), and in the current context of social injustice, neglect and racism. These factors have a serious impact on the everyday life in communities contributing to the prevalent feelings of disempowerment, hopelessness, despair, negativism and resentment. The destruction of traditional Aboriginal and Torres Strait Islander culture and social structure has frequently resulted in breaking down of traditional support systems, undermining of male roles and leadership, rejection of cultural and spiritual values, depression and anomie. Also, loss and grief related to (often premature) deaths of community members and the intergenerational trauma seem to permeate many communities.

Programs leading to positive outcomes in social and emotional wellbeing and suicide prevention have to recognise and target both risk and protective factors in communities. The risk factors plaguing Indigenous communities include poor health status, high premature mortality, unemployment, and overcrowding, substance abuse, interpersonal and domestic violence, and normalization of suicide. These risk factors are related to the general "lifestyle of risk" stemming from historical factors mentioned above and perpetuated by current social exclusion of Indigenous Australians. However, there seems to be a dialectic tension between despair and strength in communities and Indigenous Australians (see Principle Three), and focusing on the problems only can result in harmful negative labelling of Indigenous Australians and internalised racism.

Principle Three - Development of Individual, Family and Community Social and Emotional Wellbeing

In the context of the harsh reality of everyday life for many Indigenous Australians, the holistic concept of social and emotional wellbeing seems to be "pie in the sky". However, it has to stressed repeatedly that Indigenous Australians are exceptional survivors full of resilience and strength and "a mental health promotion or social emotional wellbeing approach, rather than a diagnostic or problem-based approach to suicide prevention, is required to focus on support pathways, not just clinical pathways (…) communities respond well to the positive approach of mental health promotion for suicide prevention when there is a focus on resilience, coping strategies, wellbeing, and positive personal and cultural identity" (Stacey et al., 2007; p. 251).

Social and emotional wellbeing and suicide prevention programs can be delivered within a spectrum of interventions encompassing a wide range of mental health initiatives, including universal, selective and indicated interventions (Commonwealth Department of Health and Aged Care, 2000; Commonwealth of Australia, 2007). In the Indigenous context, there should be enough resources and willingness to develop and implement a wide range of programs ranging from community development and positive cultural identity, through strengthening of families and development of resilience in children and young adults, to crisis intervention and treatment. There should be a balance between interventions addressing mental health issues and mental health promotion on individual and family levels, and social and economic issues on the community level.

Principle Four - Acknowledgement and Recognition of Aboriginal and Torres Strait Islander Diversity and Importance of the Local Context

"There is great diversity within Aboriginality. (…) although stereotypical views of Aborigines have been perpetuated for a very long time, there is now a growing recognition of the variations and diversity of Aboriginal peoples" (Dudgeon & Oxenham, 1989; p. 1). The diversity mentioned here relates to different Aboriginal and Torres Strait Islander cultures and languages, different social structures and dwelling places both in pre-colonisation and post-colonisation periods. Social and emotional wellbeing and suicide prevention programs not only have to be run in close collaboration with Indigenous Australians and communities (see Principle One), but also have to acknowledge and allow for diversity and uniqueness and give special consideration for regional differences related to geographical location (i.e., rural, remote and urban setting). Services, organizations and programs must involve and fit the community. Each setting is unique and understanding the "mind of a community", including its needs, dynamics and formal and informal organisation, requires time and trust. Some programs can be easily adapted to work across a range of communities and settings; other may require rethinking and changes, while others may be effective in one location and population only.

Principle Five - Direct Involvement of Community Members and Development of Local Workforce

As indicated under Principle One, communities should be involved in every stage of development, implementation and evaluation of suicide prevention and social and emotional wellbeing programs, including direct involvement of community members as program facilitators and strengthening of local workforce as a target and an outcome of the program. This should particularly include effective involvement of young people. Such approach supports community development and empowers and strengthens the Indigenous Australians by recognising and acknowledging their knowledge and skills, and giving them a possibility of meaningful employment.

Often programs are initiated from within the community ("work from the heart"), by people who see the need for change and start seeking support from other communities or mainstream organisations. Community members frequently work as unpaid volunteers, but many programs (such as "Drop the Rock") encompass training, support and employment for community workers. Such programs help to empower Indigenous Australians, both those who act as trainers and facilitators and those in communities, including the elders, who are happy to see Indigenous workers and leaders.

Training of Aboriginal and Torres Strait Islander mental health workers and other professional workforce will help to achieve a critical mass of people who understand the context and needs of Indigenous Australians and can help make a difference. Given the deeply ingrained lack of trust of many Indigenous Australians in mainstream services and organisations, including health services, the justice system and the police, involvement of Aboriginal people in these areas may help to break the mistrust and increase their use. There is also a necessity of ensuring cultural safety in service organisation and delivery and establishing effective partnerships between Indigenous and non-Indigenous health workers, organisations, and communities based on mutual respect, support and recognition of knowledge, skills, experience and cultural values.

Principle Six - Ensuring Program Sustainability and Organization Capacity

Low sustainability of projects and preponderance of short-term "pilot" projects is one of the notorious problems plaguing Indigenous communities. There is need for sustainable programs delivered by organizations with enough capacity to develop, implement and evaluate the programs. "Negative effects of short-term funded projects that raise expectations then end before their objectives can be realised. In order to build trust and gain good community involvement, particularly in sensitive areas such as suicide prevention, regions need access to dedicated, consistent, long-term resources. Resources are also needed for strengthening workforce capacity within regions - both skills and positions (particularly for Aboriginal workers) - to continue and extend initial work" (Stacey et al., 2007; p. 252).

Principle Seven – Evidence - or Theory-Base for Programs

Best intention, anecdotal evidence and personal or organisational beliefs do not comprise a sufficient base for development and implementation of suicide prevention and social and emotional wellbeing programs for Indigenous Australians (see Principle Eight and Principle Nine). Given the very limited evidence regarding effectiveness of interventions in Aboriginal and Torres Strait Islander communities and the diversity of settings (see Principle Four), it may be truly challenging to provide an evidence-base for some of the programs; however, the suggested initiatives should be at least theory-based, including identification of risk and protective factors, processes and outcomes relevant to the needs of the community.

Principle Eight - Appropriate Program Evaluation

Lack of evaluation of suicide prevention and social and emotional wellbeing programs in Indigenous communities as well as in the mainstream populations is a well known problem contributing to the lack of evidence-base mentioned above. Best intentions and enthusiasm may not be sufficient to develop and implement effective programs, and there is a danger of wasting financial and human resources on ineffective or even harmful programs. "Clearly, action to prevent suicide cannot wait on definitive research. At the same time, there is an urgent need for evaluation research of intervention programs in Aboriginal communities, since there is a real possibility that some well-intentioned interventions may do more harm than good" (Kirmayer et al., 2007; p. 110).

Evaluation methodology, including the choice of realistically attainable and measurable outcomes, should be culturally informed and appropriate, and decided upon through the process of collaboration with the community. Usually it is not possible within the timeframe of the program to evaluate its effectiveness through its impact on suicide mortality and morbidity, i.e. the number of suicide deaths and attempts. Other more intermediate outcomes may be more appropriate, such as increased involvement in community initiatives aiming at improving social and emotional wellbeing, changes in the environment, increased collective sense of control and empowerment, increased personal skills and knowledge, positive changes in public policy, service organisation, delivery, and utilization.

Principle Nine - "Researching Ourselves Back to Life"

Historically, as a consequence of abusive and culturally disrespectful studies, "research" has become a "dirty word" for many Indigenous Australians and in many communities. Recently, given the success of the Cooperative Research Centre for Aboriginal Health, many Aboriginal and Torres Strait Islander organisations across the country have embraced research with enthusiasm. Many universities have Aboriginal and Torres Strait Islander units, and the National Health and Medical Research Council and Australian Research Council fund and support Indigenous Australian researchers and postgraduate students. Some community organisations fund their own researchers, foe example, Winnunga Nimmityjah Aboriginal Health Service in the ACT. Torres Strait Islanders are setting up their own academy of scholars and an academic journal.

Without the good knowledge and proper understanding of the causes and correlates of Aboriginal and Torres Strait Islander suicide and the positive protective factors strengthening social and emotional wellbeing, it is not possible to make any real progress and to save lives. In the words of a Native Canadian Elder, "if we have been researched to death, maybe it's time we started researching ourselves back to life" (Castellano, 2004; p. 98). Culturally sensitive and appropriate, non-abusive research methodologies are being developed, including Participatory Action Research, and Indigenous Australians are "researching themselves back to life" (Foster, Williams, Campbell, Davis, & Pepperill, 2006). Such studies need further support and funding.

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Appendix One: Glossary

This Glossary has been compiled based on glossary of the Australian Network for Promotion, Prevention and Early Intervention for Mental Health (*Auseinet*)[21], glossaries of policy documents reviewed in this Report, and Mrazek and Haggerty (1994).

Aboriginal: A person of Aboriginal descent who identifies as an Aboriginal and is accepted as such by the community in which he or she lives.

Aboriginal and Torres Strait Islander health: Holistic concept, encompassing mental health and physical, cultural and spiritual health, considering land to be central to wellbeing. This holistic concept does not merely refer to the 'whole body' but in fact is steeped in the harmonised interrelations which constitute cultural wellbeing. These inter-relating factors can be categorised largely as spiritual, environmental, ideological, political, social, economic, mental and physical. Crucially, it must be understood that when the harmony of these interrelations is disrupted, Aboriginal ill health will persist.

Health: Health does not just mean the physical wellbeing of an individual, but refers to the social, emotional and cultural wellbeing of the whole community. This is a whole-of-life view and includes the cyclical concept of life-death-life. Health care services should strive to achieve the state where every individual can achieve their full potential as human beings and thus bring about the total wellbeing of their communities.

Holistic approach: A holistic approach to health incorporates a comprehensive approach to service delivery and treatment where coordination of a client's needs and total care takes priority. It is an acknowledgement that economic and social conditions affect physical and emotional wellbeing. Care therefore needs to take into account physical, environmental, cultural, and spiritual factors for achieving social and emotional wellbeing.

Illness: An unhealthy condition of body or mind.

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[21] http://auseinet.com/glossary

Indicated intervention: A preventive intervention targeted to high-risk individuals who are identified as having minimal but detectable signs and symptoms foreshadowing mental disorder but who do not meet DSM-IV diagnostic levels at the current time.

Indigenous: A person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander and is accepted as such by the community with which he or she is associated.

Mental health: Capacity of the individual, the groups and the environment to interact with one another in ways that promote subjective wellbeing, the optimal development and use of mental abilities (cognitive, affective or emotional and relational), the achievements of individual and collective goals consistent with the attainment and presentation of conditions of fundamental equality. Mental health is incorporated into the holistic approach to health care as defined in the definition of health.

Mental health promotion: A process aimed at changing environments (social, physical, economic, educational and cultural) and enhancing the 'coping' capacity of communities, families and individuals, by giving people the power, knowledge, skills and necessary resources.

Prevention : Interventions that occur before the initial onset of a disorder

Protective factors: Capacities, qualities, environmental and personal resources that drive individuals towards growth, stability, and health.

Resilience: Capacities within a person that promote positive outcomes, such as mental health and wellbeing, and provide protection from factors that might otherwise place that person at risk of adverse health outcomes. Factors that contribute to resilience include personal coping skills and strategies for dealing with adversity, such as problem-solving, good communication and social skills, optimistic thinking, and help-seeking.

Risk factors: Factors such as biological, psychological, social and cultural agents that are associated with suicide/suicide ideation. Risk factors can be defined as either distal (internal factors, such as genetic or neurochemical factors) or proximal (external factors, such as life events or the availability of lethal means - factors which can ‘trigger’ a suicide or suicidal behaviour).

Selective intervention: A preventive intervention targeted at individuals or population subgroup whose risk of developing mental disorders is significantly higher than average.

Self-injury: Deliberate damage of body tissue, often in response to psychosocial distress, without the intent to die. Sometimes called non-suicidal self-injury, or self-harm.

Suicidal behaviour: Includes the spectrum of activities related to suicide and self-harm including suicidal thinking, self-harming behaviours not aimed at causing death and suicide attempts. Some writers also include deliberate recklessness and risk-taking behaviours as suicidal behaviours.

Suicidal ideation: Thoughts about attempting or completing suicide.

Suicide: The act of purposely ending one’s life.

Suicide prevention: Actions or initiatives to reduce the risk of suicide among populations or specific target groups.

Torres Strait Islander: A person of Torres Strait Islander descent who identifies as a Torres Strait Islander and is accepted as such by the community in which he or she lives.

Universal intervention: A preventive intervention targeted to the general public or a whole population group that has not been identified on the basis of individual risk.

Wellness: The quality or state of being in good health especially as an actively sought goal

Appendix Two: Acknowledgements

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Abbreviations

ADHD	Attention Deficit Hyperactivity Disorder
CATI	Computer Assisted Telephone Interviewing
CI	Confidence Interval
LSD	Lysergic Acid Diethylamide
OR	Odds Ratio
PTSD	Post Traumatic Stress Disorder

Glossary

The following definitions were sourced using http://www.oxfordreference.com. For more information about the specific sources for each term, please contact the authors. All terms in the glossary are written in green text throughout the document.

Aetiology	The cause, set of causes, or manner of causation of a disease or condition.
Alexithymia	A disturbance of affect and cognition indicated by difficulty in describing or recognising one's own emotions, and a reduced affective and fantasy life. [From Greek alexein to avert + thymos spirit + -ia indicating a condition or quality]
Attention Deficit Hyperactivity Disorder	A mental disorder of childhood, at least three times as common in boys as in girls, characterised by persistent inattention, hyperactivity, or impulsivity, with some of these signs and symptoms appearing before age 7, causing problems at school or work and in the home, and interfering significantly with social, academic, or occupational functioning.
Borderline Personality Disorder	A personality disorder characterized by a pervasive pattern of impulsivity and unstable personal relationships, self-image, and affect, beginning in early childhood, and indicated by such signs and symptoms as frantic attempts to avoid real or imagined abandonment; intense and unstable personal relationships; continuously fluctuating self-image; impulsivity (in spending, unsafe sex, substance abuse, reckless driving, binge eating, and the like); recurrent suicidal or self-mutilating gestures or behaviour; emotional instability; chronic feelings of emptiness; intense and inappropriate anger (such as frequent outbursts of temper); and transient, stress-related paranoid ideation or dissociation.
Clinical Samples	Clinical: the observation and treatment of patients; sample: a subgroup of a population that is selected for study because it is regarded as representative of the population as a whole; ie, clinical samples: groups of

	people who are part of a study and who are receiving treatment for a disease
Cognitive Reappraisal	Cognitive=relating to the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses; reappraisal=to appraise or assess again or in a different way
Computer Assisted Telephone Interviewing	A system in which a telephone interviewer conducts a sales or marketing interview, using a computer and a computerized questionnaire. This system reduces the number of errors as the interviewer keys in the respondent's answers as they are given and the computer follows a complex questionnaire routing efficiently, enabling the required statistics to be extracted automatically.
Confidence Interval	A range of values within which there is a specified probability that the true value of a population parameter is expected, with a specified level of confidence, to lie. (If the confidence interval for an *odds ratio* includes the value of 1.0, this means that there is probably an equal chance of the ‘event’ occurring in either of the two groups.)
Constructs	Psychological attributes, such as intelligence or extraversion, on which people differ from one another.
Demographics	Statistics that describe the characteristics of a population, such as age, sex, race, family size, income, and location of residence.
Depersonalisation	A state in which one's thoughts and feelings seem unreal or not to belong to oneself, or in which one loses all sense of identity.
Derealisation	A feeling that one's surroundings are not real.
Dissociation	Partial or total disconnection between memories of the past, awareness of identity and of immediate sensations, and control of bodily movements, often resulting from traumatic experiences, intolerable problems, or disturbed relationships.
Epidemiological	Adjective of epidemiology: the branch of medicine which deals with the incidence, distribution, and possible control of diseases and other factors relating to health.
Lysergic Acid Diethylamide	A powerful hallucinogenic drug.
Mean	Mathematical average. It is found by adding a group of numbers and dividing by the number of items in the group.
Median	The middle item in a group found by ranking the items from smallest to largest.
Methodology	Accepted standard usage when describing in detail how a research study has been conducted.
Mode	The item that occurs most frequently in a data set.
Morbidity	The proportion of individuals in a population suffering from a particular

	disease or the state of being ill or diseased.
Mortality	The death rate.
Odds Ratio	The ratio of the probability of an event or condition occurring in one group (e.g. an experimental group) compared with that in another group (e.g. a control group). An odds ratio of 1.0 means that the event or condition will occur equally in both groups, >1 that it will occur in the experimental group more frequently than in the control group, and <1 that it will occur less frequently in the experimental group than the control.
Oversampling	The deliberate selection of individuals of a rare type in order to obtain reasonably precise estimates of the properties of this type. In a population which includes such a rare type, a random sample of the entire population might result in very few (or none) of these individuals being selected. Oversampling implies the deliberate sampling of a much higher proportion of this type than of the rest of the population.
Population Parameter	A parameter for a population is some quantity that relates to the population, such as its mean or median.
Post Hoc	After the event; consequent(ly).
Post Traumatic Stress Disorder	A condition of persistent mental and emotional stress occurring as a result of injury or severe psychological shock, typically involving disturbance of sleep and constant vivid recall of the experience, with dulled responses to others and to the outside world.
Prevalence	The total number of existing cases of a disorder as a proportion of a population (usually per 100,000 people) at a specific time.
Probability	The extent to which something is likely to happen or be the case.
Random Sample	A sample of a population selected so that all items (people) in the population are equally likely to be included in the sample.
Reliability	A measure of the confidence that we can have in the results obtained from a psychological test. A key question is whether the variability in the scores obtained by different individuals is due to real differences between the individuals or to chance variations resulting from inadequacies in the testing process.
Response Rate	The percentage of the total number of subjects sampled who respond to a survey or questionnaire.
Sample	A subgroup of a population that is selected for study because it is regarded as representative of the population as a whole.
Sampling Frame	A list of members of a population from which members of a sample are selected.
Stigma	A mark of disgrace associated with a particular circumstance, quality, or person
Weighting	A method of adjustment to allow for differences between a study

	population and a “standard” one, between two or more populations that are being compared, or among any set of variables in which confounding factors might otherwise invalidate comparisons. It can be done in several ways, often by taking different predetermined proportions from several parts of the study population or set of variables, to ensure that numbers in each are sufficient to yield stable rates.

Chapter 1: Introduction

Self-Injury

For the purposes of this document, **self-injury** is the deliberate destruction or alteration of body tissue without suicidal intent (Favazza, 1989). **Suicidal behaviours** are self-destructive acts accompanied by intent to die, and include completed suicide. **Deliberate self-harm** is self-harm with and without suicidal intent, and therefore includes both self-injury and suicidal behaviours.

Although the majority of self-injury is not of a severe nature (Prinstein, 2008), it is a risk factor for attempted and completed suicide (Conner et al., 2003; Gould et al., 1990; Hawton & James, 2005; Hawton et al., 2003; NHS Centre for Reviews and Dissemination, 1998), and is associated with psychopathology (Evans et al., 2005; Gratz et al., 2002; Herpertz et al., 1997; Zlotnick et al., 1999; Zweig-Frank et al., 1994a), family dysfunction (Turell & Armsworth, 2000), substance abuse (Hawton et al., 1997; Klonsky et al., 2003), and a history of child maltreatment (Evren, 2005; Darche, 1990; Brodsky, 1995; Briere, 1998; Zoroglu, 2003; Zweig-Frank, 1994; Zweig-Frank, 1994; Windham, 2000; Dubo, 1997; Turell, 2000).

The most common methods of self-injury differ according to sample type, with cutting the most common method among Clinical Samples (Claes, Vandereycken, & Vertommen, 2003; Herpertz, 1995; Kleindienst et al., 2008; Osuch, Noll, & Putnam, 1999; Shearer, 1994) and scratching (Hasking, Momeni, Swannell, & Chia, 2008; Whitlock, Eckenrode, & Silverman, 2006) and self-battery (Klonsky & Olino, 2008) more common among non-clinical samples.

Self-injury methods also differ according to sex, with males more likely to hit themselves or bang a part of the body against a solid object (ref) while females are more likely to ???? (ref). Studies that ask only about cutting or burning are less likely to include men (ref), while samples that ask open-ended questions seem to include men in larger numbers to the point where rates are only slightly lower than female rates (ref).

The most common motivation for self-injury, among both clinical and non-clinical samples, is to regulate emotion (Klonsky, 2007). Other frequent motivations for self-injury include self-punishment, management of Dissociation, communicating with or influencing others, avoiding suicide, sensation-seeking, and establishing interpersonal boundaries (Klonsky, 2007). The motivations for self-injury may also differ according to sex.

The frequency of self-injury among individuals varies greatly, with some self-injuring on a daily basis, others self-injuring a few times a year, and yet others only engaging in the behaviour once. It is likely that self-injury increases in frequency when the individual is distressed or is experiencing a difficult life situation. There is consensus in the literature that self-injury most commonly starts between the ages of 12 and 15 (Kumar, Pepe, & Steer, 2004; Muehlenkamp & Gutierrez, 2004, 2007; Nixon, Cloutier, & Aggarwal, 2002; Nixon, Cloutier, & Jansson, 2008; Nock & Prinstein, 2004; Ross & Heath, 2003).

Although it is commonly believed that self-injury decreases into adulthood, this has been largely untested. One study of self-injury followed 299 patients aged 18-35 years with Borderline Personality Disorder over several years. At baseline, 81% reported engaging in self-injury within the previous two years, while only 26% reported engaging in self-injury at the six year follow-up (Zanarini, Frankenburg, Hennen, D. Bradford Reich, & Silk, 2005). This suggests that self-injury decreases over time. However, the results of this study cannot be generalised to patients without Borderline Personality Disorder or non-clinical populations.

Many people who self-injure, especially those diagnosed with Borderline Personality Disorder, do not feel pain when they inflict damage on their bodies (Hilt, Cha, & Nolen-Hoeksema, 2008; Klonsky & Olino, 2008; Leibenluft, Gardner, & Cowdry, 1987; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006; Nock & Prinstein, 2005; Russ et al., 1992; Russ, Shearin, Clarkin, Harrison, & Hull, 1993). This may be clinically important. Muehlenkamp and Gutierrez (2007a) postulate that people who don't feel pain during self-injury may be at higher risk of suicide than those who do feel physical pain during self-injury, as those who are analgesic do not associate physical damage with pain. This might in turn reduce their fears of suicidal behaviour. Joiner, Brown and Wingate (2005) proposed that individuals who attempt suicide are able to do so, in part, because they have habituated to pain associated with self-destructive acts through exposure to acts of deliberate self-harm.

Rationale and Aims of the Study

Self-injury is a risk factor for attempted and completed suicide, causes distress for those who engage in self-injury, their family and friends and carers, and when it escalates into serious harm, places considerable financial burden on the Australian health system. Further, many people who self-injure are treated badly by professionals due to the Stigma associated with self-injury, which portrays self-injury as purely attention seeking and manipulative behaviour.

The Australian National Epidemiological Study of Self-injury (ANESSI) aimed to determine the Prevalence of self-injury in the Australian community, including age and sex distributions, and the methods and motivations for self-injury. In addition, the relationships between self-injury and suicidality, psychological factors, psychiatric diagnoses, drugs and alcohol, and experience of trauma were explored.

Chapter 2: Methodology

Survey

The survey was administered via Computer Assisted Telephone Interviewing, a telephone surveying technique in which the interviewer follows a script provided by a software application. The software is able to customise the flow of the questionnaire based on the answers provided, as well as information already known about the participant. Computer Assisted Telephone Interviewing technology ensures immediate entry of data from the interviewer's screen to the computer database; precise ordering and timing of call backs; correct sequencing of questions; enforced range of checks on each response; automatic rotation of response categories (if required) and a rapid completion of the data collection phase of the survey.

Designing a survey to be used in the context of a Computer Assisted Telephone Interview is complex. In the development phase we were aware that many people are not receptive to telephone surveys and evidence from the US suggests surveys generally meet increasing resistance from the general public (reference). The initial discussion amongst team members, based on prior experience of Computer Assisted Telephone Interviewing, suggested an interview of no longer than 10 minutes might be acceptable. The time constraint was challenging because so many factors are associated with self-injury. We had to either measure fewer variables using entire scales (sacrificing detail), or measure a larger number of variables by taking key items out of various scales (sacrificing reliability and validity). We chose the latter option which means that the validity of each item may be questionable.

Although the people who chose to respond to the survey had received written advice about the nature of the survey prior to the interview, and then verbal warning prior to final agreement, we were still concerned that placing questions about self-injury at the front of the survey might lead to withdrawal. Ultimately it is gratifying to note that only 0.6% of the sample (n=173) withdrew during the interview.

The survey included questions on Demographics, self-injury, suicide, mental health history, emotions and coping, substance abuse, child maltreatment and help seeking (see Appendix for a summary of the survey questions). Although originally planned for 10 minutes, the interview took an average of 13.6 minutes.

Procedure

Households were sent an Approach Letter, an Adult Participant Information Sheet, a Young People's Participant Information Sheet, and a Summary of the Survey Questions (see Appendix). A list of Mental Health and Indigenous Health Contacts were also included in the package (for copies of the documents, please contact the Centre for Suicide Prevention Studies). The purpose of the Approach Letter was to alert householders to the possibility of an interviewer phoning the household and requesting an interview, explain why their particular household received a letter (random selection) and explain that the interview would be voluntary and confidential. The Approach Letter provided a free call number that potential respondents could call to enquire about the project.

In the primary telephone call, the selected respondent was the person, aged 10 years or over who was last to have a birthday. Each selected person had six call-backs before another household was selected, and there was only one interview per household. The interviews were conducted in six languages: English, Italian, Greek, Vietnamese, Chinese, and Arabic.

Weighting was used post hoc to correct for the disproportionality of the sample with respect to structure of the Australian population by age, sex and state (as per the Australian Bureau of Statistics 2006 Census).

Participants

Sampling Frame and Response Rate

The original Sampling Frame was a Random Sample of 42,938 Australian households from all states and territories derived from the Australian Electronic White Pages. Of these, 11,722 were ineligible due to disconnected phone lines, relocations, or not being a residential property, leaving 31,216 eligible households. Of these, 12,006 Australians participated in the survey (38.5% of the eligible sample). Table 1 outlines the participant Response Rate and reasons for not taking part.

Table 1: Response Rate

	Count	%
Initial eligible sample	31,216	100
Refusals	14,032	45.0
Parental refusal	671	3.5
Unable to contact respondent after six attempts	2,341	7.5
Respondent unable to speak English, Italian, Greek, Vietnamese, Chinese, or Arabic	726	2.3
Incapacitated and unable to be interviewed (ie too ill, hearing impaired)	912	2.9
Terminated interviews	173	0.6
Respondent unavailable	351	1.1
Completed interviews	[a]12,010	38.5

[a]Four respondents were excluded due to missing or irreconcilable data, leaving a total of 12,006 records for data analysis

Age and Sex Distribution

Of the entire sample, 38.3% were male (n=4,597) and 61.7% were female (n=7,409). In terms of age, 4.9% (n=583) were under 18 years.

Table 2 and

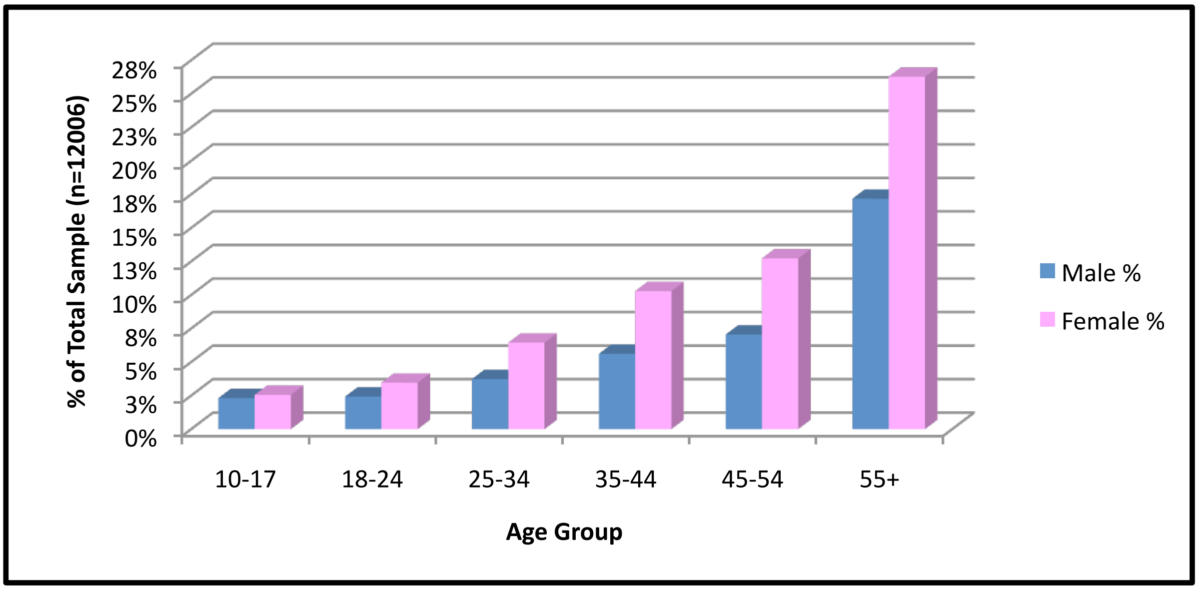
Figure 1 show the sample distribution by age and sex before Weighting.

Table 2: Sample by Age and Sex (non-weighted)

	Males		*Females*		*Persons*	
Age Groups	Count	%	Count	%	Count	%
10-17	277	2.3%	306	2.5%	583	4.9%
18-24	291	2.4%	415	3.5%	706	5.9%
25-34	448	3.7%	773	6.4%	1221	10.2%
35-44	673	5.6%	1234	10.3%	1907	15.9%
45-54	846	7.0%	1527	12.7%	2373	19.8%
55+	2062	17.2%	3154	26.3%	5216	43.4%
All age groups	4597	38.3%	7409	61.7%	12006	100.0%

% is of entire sample (n=12,006)

Figure 1: Sample Distribution by Age and Sex (non-weighted)



The sample distribution was not representative of the Australian population by sex or age; the sample comprised more females than the actual Australian population (sample – 61.7%; Australian population – 50.5%) and fewer males than the actual Australian population (sample – 38.3%; Australian population – 49.5%). More specifically, the sample was comprised of more females in the older age categories (35-44, 45-54, and 55+), fewer females in the younger age categories (10-17, 18-24, and 25-34), more males in the oldest age category (55+), and fewer males in all other age categories compared to the Australian population. Figure 2 and Figure 3 illustrate the difference between the sample and the actual Australian population by age for females and males respectively.

Consequently, for all statistical analyses described in Chapter 3 “Key Findings”, weighting was used so the sample reflected the distribution of the Australian population by sex and age.

Figure 2: Sample Distribution (non-weighted) Compared with the Australian Population Distribution by Age – Females

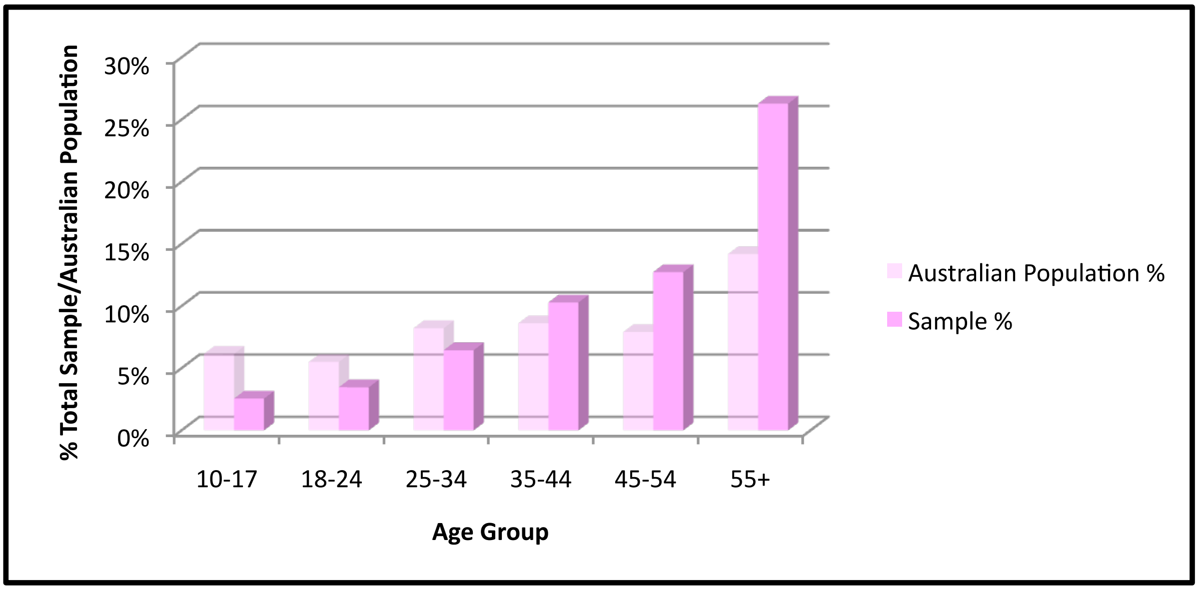
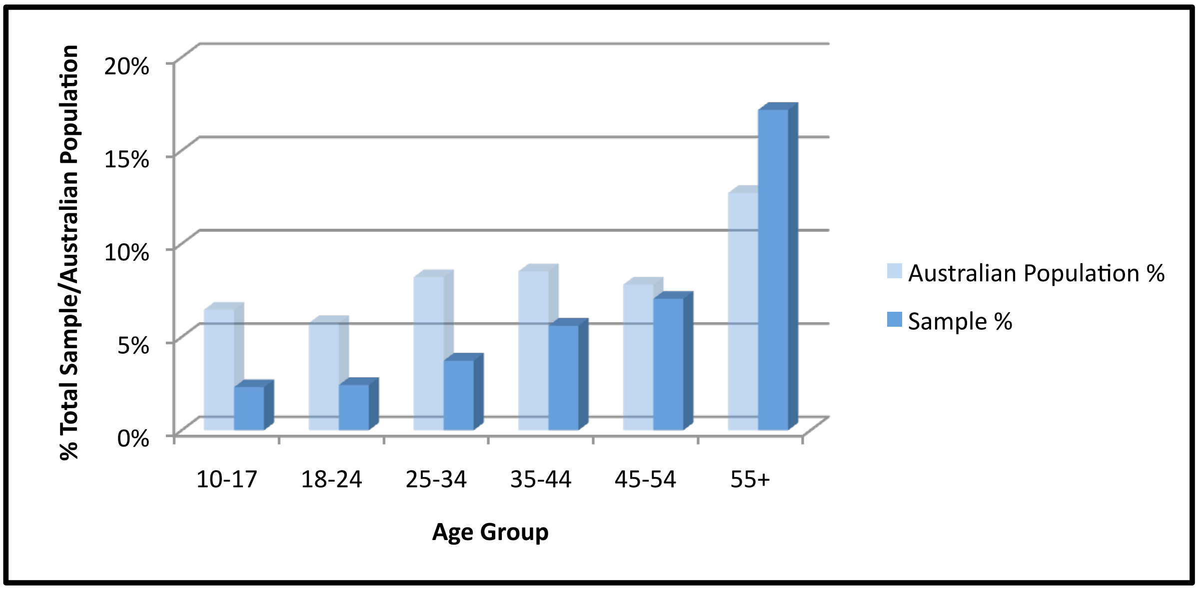


Figure 3: Sample Distribution (non-weighted) Compared with the Australian Population Distribution by Age – Males



Geographical Location Distribution

The largest proportion of respondents (31.8%, n=3,816) was from New South Wales and the smallest proportion (0.4%, n=50) was from the Northern Territory. These figures were very close to the actual geographical distribution of the Australian population. Statistical weighting was used to re-distribute the sample to reflect the geographical distribution of the Australian population for statistical analyses. Table 3 shows the sample and the Australian population distribution according to geographical location.

Table 3: Sample Distribution (non-weighted) compared with the Australian Population Distribution by Geographical Location

	Sample		[a]Australian Population	
	Count	%	Count	%
New South Wales (NSW)	3816	31.8	7076500	32.5
Victoria (VIC)	2855	23.8	5402600	24.8
Queensland (QLD)	2513	20.9	4380400	20.1
Western Australia (WA)	1079	9.0	2224300	10.2
South Australia (SA)	1013	8.4	1618200	7.4
Tasmania (TAS)	394	3.3	501800	2.3
Australian Capital Territory (ACT)	286	2.4	349900	1.6
Northern Territory (NT)	50	.4	223100	1.0
Totals	*12,006*	*100.0*	*21779100*	*100.0*

[a] 3101.0 – Australian Demographic Statistics, Mar 2009

Indigenous Australians

Although Indigenous Australians are at higher risk of self-injury and deliberate self-harm compared to non-Indigenous Australians, our study did not focus on this population (i.e. did not use Oversampling). The reasons for this included the difficulty involved in accessing remote Indigenous populations (especially considering we collected data via the telephone), as well as the culturally inappropriate nature of our information-gathering method (direct questioning). According to the Indigenous Research Reform Agenda (2002) and the Aboriginal and Torres Strait Islander Studies Unit (ATSIS) at the University of Queensland, narrative and oral research approaches are more appropriate for Indigenous samples. Our decision not to focus on Indigenous populations was made after extensive liaison with ATSIS. Indigenous people were included in the survey as members of the Australian population. Table 4 shows the age and sex distribution of the Indigenous sample.

Table 4: Indigenous Sample by Age and Sex (non-weighted)

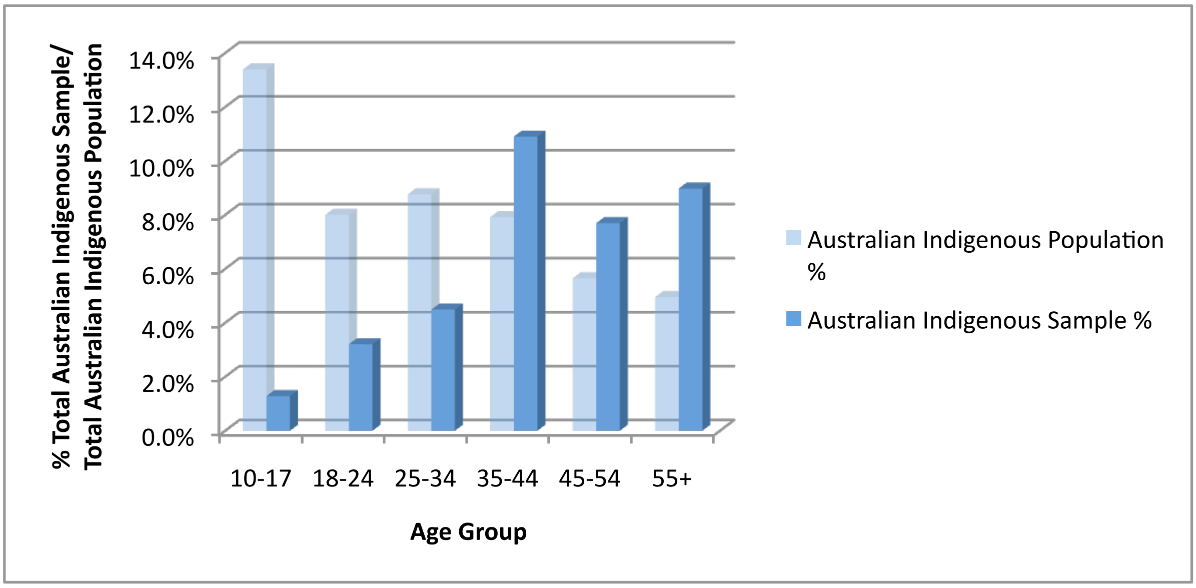
	Males		*Females*		*Persons*	
Age Groups	Count	%	Count	%	Count	%
10-17	2	3.5	9	9.1	11	7.1
18-24	5	8.8	9	9.1	14	9.0
25-34	7	12.3	22	22.2	29	18.6
35-44	17	29.8	22	22.2	39	25.0

45-54	12	21.1	16	16.2	28	17.9
55+	14	24.6	21	21.2	35	22.4
All age groups	57	100.0	99	100.0	156	100.0

Table 5: Age Distribution of Australian Indigenous Sample and Australian Indigenous Population – Males (non-weighted)

	Australian Indigenous Population		Australian Indigenous Sample	
Age Groups	Count	%	Count	%
10-17	45,718	27.5	2	3.5
18-24	27,327	16.4	5	8.8
25-34	29,915	18.0	7	12.3
35-44	27,024	16.3	17	29.8
45-54	19,287	11.6	12	21.1
55+	16,912	10.2	14	24.6
All age groups	166,183	100.0	57	100.0

Figure 4: Australian Indigenous Population Distribution versus Australian Indigenous Sample Distribution (non-weighted) by Age – Males



Of the sample, 1.3% (n=156) identified as Aboriginal or Torres Strait Islander, or both. This percentage was fewer than that (2.1%) found in the Australian 2006 Census of Population and Housing. The sample distribution was not representative of the Australian Indigenous population by sex or age; similar to the overall sample, the Indigenous sample comprised more females (sample – 63.5%; Australian population – 51.3%) and fewer males (sample – 36.5%; Australian population – 48.7%). The age distribution in the Indigenous sample was also different to that in the Australian Indigenous population, with fewer respondents in the youngest age groups (10–17 and 18–24 years) and more respondents in the older age groups (35–44, 45–54, and 55+) in the sample compared to the population, for males and females. In the 25–34 age group, the sample contained fewer males and more females than the Australian Indigenous population. Table 5 and Figure 4 show the age distribution of the Australian Indigenous sample and the Australian Indigenous population for males and Figure 5 and

Table 6 show the age distribution of the Australian Indigenous sample and the Australian Indigenous population for females.

Figure 5: Australian Indigenous Population Distribution versus Australian Indigenous Sample Distribution (non-weighted) by Age – Females (non-weighted)

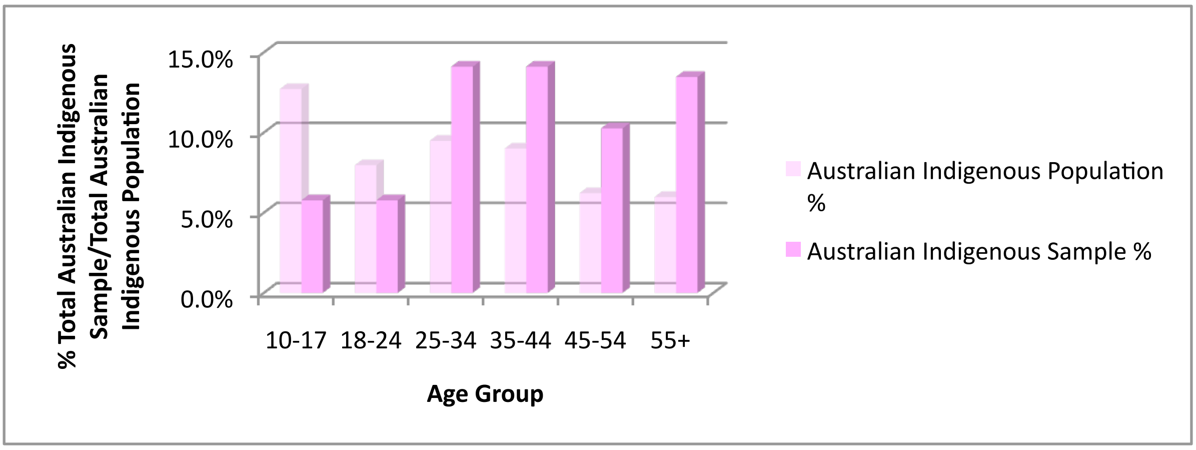


Table 6 : ***Age Distribution of Australian Indigenous Population and Australian Indigenous Sample - Females***

	Australian Indigenous Population		Australian Indigenous Sample	
Age Groups	Count	%	Count	%
10-17	43,399	25.8	9	9.1
18-24	27,164	15.5	9	9.1
25-34	32,374	18.5	22	22.2
35-44	30,729	17.5	22	22.2
45-54	21,225	12.1	16	16.2
55+	20,399	11.6	21	21.2
All age groups	175,290	100.0	99	100.0

Chapter 3: Key Findings

Note: all findings are based on data weighted by age, sex and state/territory to reflect the structure of the Australian population ten years and over. As previously noted, the response rate was 38.5%.

Prevalence of Self-Injury

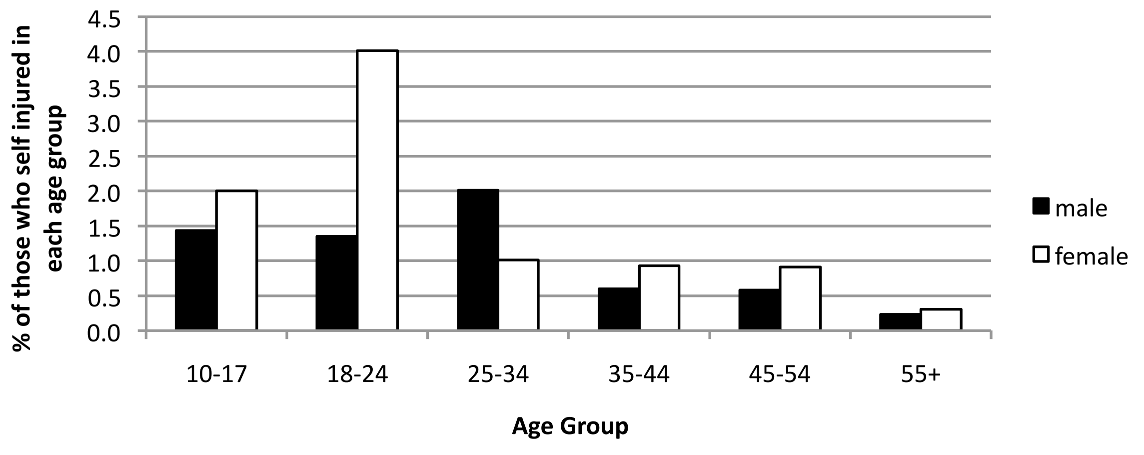
Respondents were asked whether they had self-injured in the previous four weeks. For the overall sample (n=12006), the four week prevalence of self-injury was 1.1% (n=129) and was slightly higher for women (1.2%, n=74 of a total sample of 6,063 females) than men (0.9%, n=55 of a total sample of 5,943 males). For women, self-injury peaked in the age group 18-24 (4.0%, n=27) and for males self-injury peaked in the age group 25-34 (2.0%, n=19), after which the prevalence declined with age for both sexes. Table 7 and Figure 6 show the distribution of respondents by age and sex who reported having self-injured in the four weeks prior to the survey.

Table 7: Four Week Prevalence of Self-injury by Age and Sex

	Males		*Females*		*Persons*	
Age Group	Count	%	Count	%	Count	%
10-17	11	1.4	14	2.0	25	1.7
18-24	9	1.3	27	4.1	36	2.7
25-34	19	2.0	10	1.1	29	1.5
35-44	6	0.6	9	0.9	15	0.7
45-54	5	0.5	9	0.9	14	0.7
55+	4	0.3	5	0.3	9	0.3
All age groups	54	0.9	74	1.2	128	1.1

Note: Percentages represented the proportion of respondents who reported self-injury in each age group, by sex.

Figure 6: Four Week Prevalence of Self-injury by Age and Sex

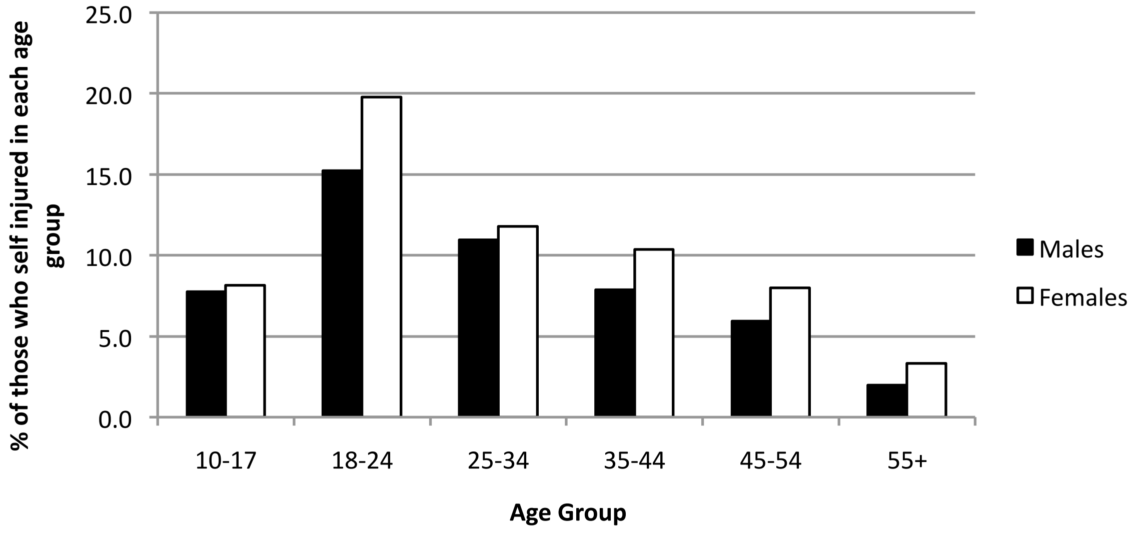


Respondents who had not self-injured in the previous four weeks were asked whether they had ever self-injured. For lifetime data (summing four week and lifetime data), the overall prevalence of self-injury was 8.1% (n=977), with a higher prevalence in females (8.9%, n=542) than males (7.3%, n=435). Self-injury peaked in the 18-24 age group for both sexes (females 19.8%, n=131; males 15.2%, n=105), followed by the 25-34 age group for both sexes (females 11.8%, n=112; males 10.9%, n=105, after which the prevalence declined with age for both sexes. This may reflect a secular increase in self-injury with successive generations or may be accounted for by recall bias. Table 8 and Figure 7 show the distribution of respondents by age and sex who reported having self-injured any time in their lifetime.

Table 8: Lifetime Prevalence of Self-injury by Age and Sex

	Males		*Females*		*Persons*	
Age Group	n	%	n	%	n	%
10-17	59	13.6	58	10.7	117	12.0
18-24	105	24.1	131	24.2	237	24.2
25-34	105	24.1	112	20.7	217	22.2
35-44	79	18.2	105	19.4	184	18.8
45-54	56	12.9	77	14.2	133	13.6
55+	31	7.1	59	10.9	90	9.2
All age groups	435	100.0	542	100.0	978	100.0

Figure 7: Lifetime Prevalence of Self-injury by Age and Sex



The prevalence of self-injury among Indigenous respondents was higher than that for the overall sample, but the Indigenous sample size was small (n=183) and so results should be interpreted with caution. The four week prevalence was 2.4% (n=4). For females the prevalence was 4.2% (n=4 of a total sample of 105 Indigenous females) and no Indigenous males (n=0 of a total sample of 78 Indigenous males) reported self-injuring in the four weeks prior to the survey. Table 9 shows the distribution of Indigenous respondents by age and sex who reported having self-injured in the four weeks prior to the survey.

Table 9: Four Week Prevalence of Self-Injury by Age and Sex - Indigenous Sample

	Male		*Female*		*Totals*	
Age Group	Count	%	Count	%	Count	%
10-17	0	0.0	3	60.0	3	60.0
18-24	0	0.0	0	0.0	0	0.0
25-34	0	0.0	0	0.0	0	0.0
35-44	0	0.0	0	0.0	0	0.0
45-54	0	0.0	2	40.0	2	40.0
55+	0	0.0	0	0.0	0	0.0
All age groups	0	0.0	5	100.0	5	100.0

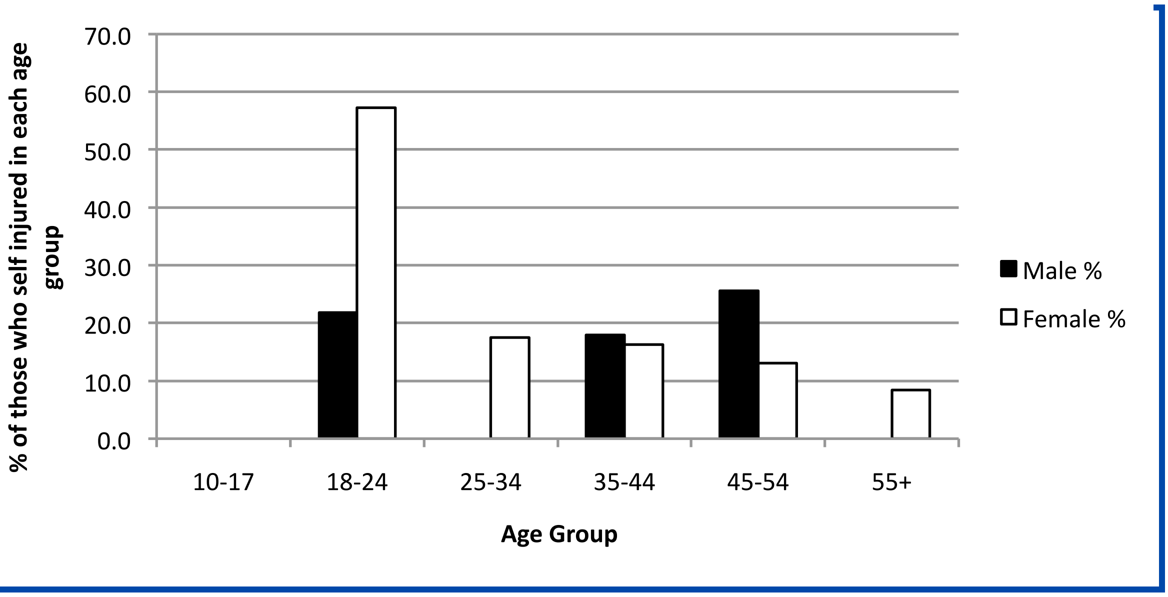
For lifetime data in the Indigenous sample, the overall prevalence of self-injury was 15.7% (n=29) with a higher prevalence in females (17.8%, n=19) than males (13.0%, n=10). Again, it is important to note that overall lifetime prevalence has limited meaning as the samples include people with variable lifetimes. Self-injury peaked in the 18-24 age group (60%, n=8) for females and the 45-54 age group for males (25.6%, n=3). Table 10 and

Figure 8 show the distribution of Indigenous respondents by age and sex who reported having self-injured any time in their lifetime.

Table 10: Lifetime Prevalence of Self-Injury by Age and Sex - Indigenous Sample

	Male		*Female*		*Persons*	
Age Group	Count	%	Count	%	Count	%
10-17	0	0.0	0	0.0	0	0
18-24	3	30.0	8	44.4	11	37.9
25-34	0	0.0	5	27.8	5	17.2
35-44	4	40.0	3	16.7	8	27.6
45-54	3	30.0	1	5.6	4	13.8
55+	0	0.0	1	5.6	1	3.4
All age groups	10	100.0	18	100.0	29	100.0

Figure 8: Lifetime Prevalence of Self-Injury by Age and Sex - Indigenous Sample

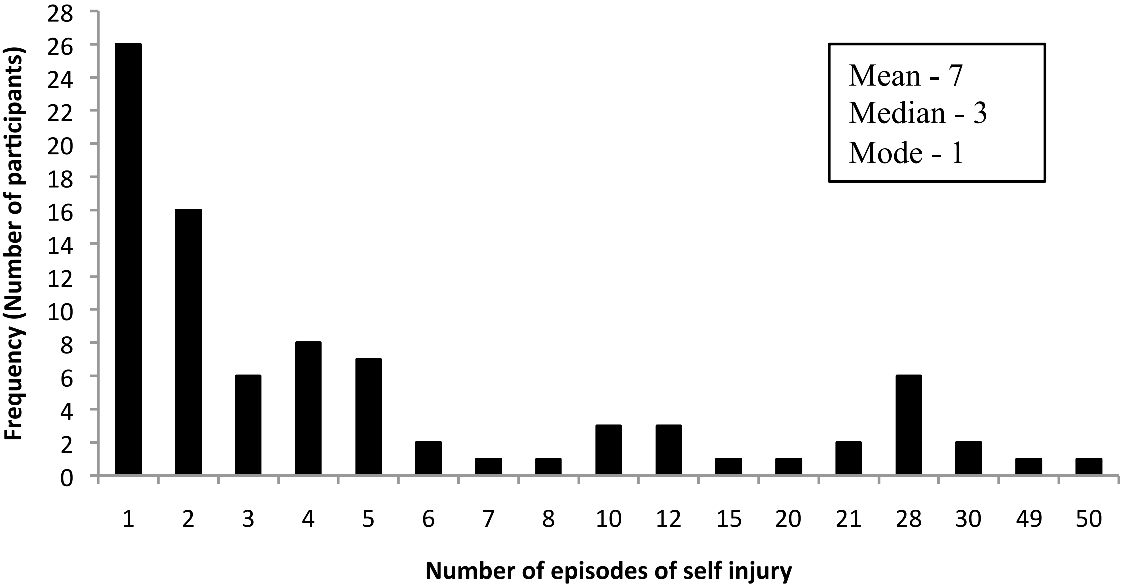


Nature of Self-Injury

Respondents were asked how many times they had self-injured, at what age they first self-injured, the methods they had used, their motivations for self-injury, whether they had received medical treatment, gone to an emergency department or stayed in hospital due to self-injury, and whether they had received any type of psychological or emotional support for self-injury.

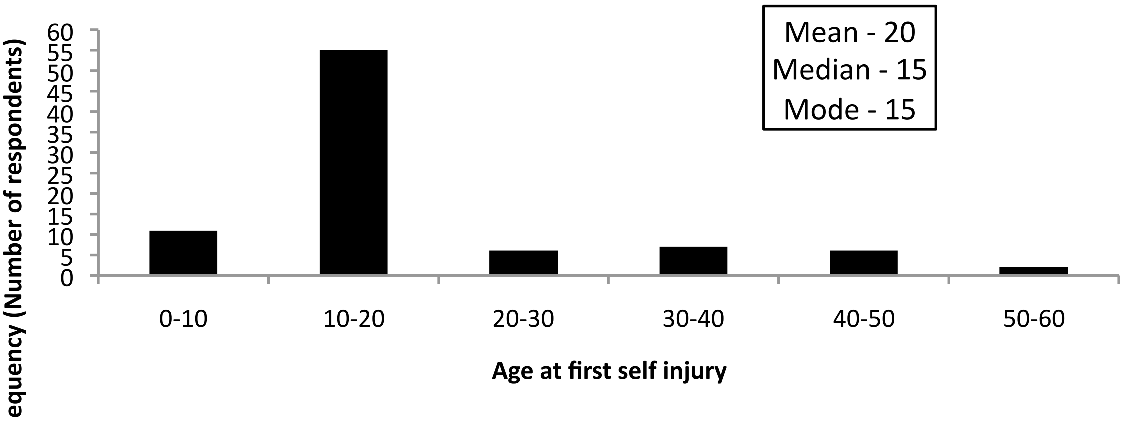
The frequency of self-injury over the four weeks prior to the survey ranged from 1 to 50 times (mean 7, median 3, mode 1; Figure 9).

Figure 9: Frequency of Self-Injury over the Four Weeks Prior to the Survey



Of those who had self-injured in the four weeks prior to the survey, the majority first self-injured in their teenage years (average age at first self-injury was 20, median age at first self-injury was 15, mode age at first self-injury was 15), although some first self-injured at a very young age while others first self-injured in older adulthood (Figure 10).

Figure 10: Age at First Episode of Self-Injury for those who had Self Injured over the Four Weeks Prior to the Survey



Respondents who reported self-injury in the four weeks prior to the survey were asked whether they had engaged in scratching, cutting, hitting a part of the body on a hard surface, punching, hitting or slapping self, overdosing, burning or biting (or anything else). Although the interviewers were clear with respondents that the construct of interest was non-suicidal self-injury, after data collection we removed overdosing as a method of self-injury due to its predominant association with suicidality.

The most common methods of self-injury for females were scratching and cutting while males were more likely to hit a part of their body on a hard surface, followed by scratching and cutting. Table 11 shows the methods of self-injury by sex.

Table 11: Methods of Self-Injury in the Four Weeks Prior to the Survey

	Female		*Male*		*Persons*	
	Count	%	Count	%	Count	%
Scratching	34	45.9	10	18.5	44	81.5
Cutting	25	33.8	10	18.5	35	64.8
Hitting a part of your body on a hard surface	16	21.6	11	20.4	27	50.0
Punching, hitting, or slapping self	13	17.6	9	16.7	22	40.7
Biting	10	13.5	3	5.6	13	24.1
Burning	5	6.8	6	11.1	11	20.4

Note: Percentages are of column values and add to more than 100 because respondents could nominate multiple methods of self-injury

For males, the motivations for self-injury were to manage emotions (54.1%), other (33.9%), punish the self (31.3%), remind himself that he is alive (6.9%), communicate with others and influence others (both 5.1%), and scarification (2.7%). For females, the motivations were to manage emotions (58.9%), other (23.8%), punish the self (22.8%), get a high (8.2%), remind herself she is alive (7.1%), communicate with others (3.2%), avoid suicide (2.7%) and scarification (0.8%). 'Other' reasons for self-injury included curiosity, habit, to prove to self and others that he/she is tough, distraction, compulsion, to be in control, to be silly, and to get attention. Table 12 shows the motivations of self-injury by sex (the totals add to more than 100% as some respondents reported multiple motivations for self-injury).

Table 12: Motivations for Self-Injury in the Four Weeks Prior to the Survey

	Males		*Females*		*Persons*	
	Count	%	Count	%	Count	%
Manage emotions	30	54.1	44	58.9	73	56.9
Punish myself	17	31.3	17	22.8	34	26.4
Remind self that he/she is alive	4	6.9	5	7.1	9	7.0
Get a high	0	0.0	6	8.2	6	4.7
Communicate to others	3	5.1	2	3.2	5	4.0
Influence others	3	5.1	0	0.0	3	2.1
Avoid suicide	0	0.0	2	2.7	2	1.6
Scarification	1	2.7	1	0.8	2	1.6
Don't know	*3*	*6.1*	*6*	*8.3*	*9*	*7.3*
Other	*19*	*33.9*	*18*	*23.8*	*36*	*28.1*

Note: Percentages are of column values and add to more than 100 because respondents could nominate multiple motivations for self-injury

Of the males who had self-injured in the four weeks prior to the survey, 14.5% (n=8) had medical treatment, but none had to go to the emergency department and only one (1.5%) was admitted to hospital as a result of self-injury. For females, 19.4% (n=14) had medical treatment, 4.1% (n=3) went to the emergency department and a further 4.1% (n=3) were admitted to hospital as a result of their self-injury (

Table 13).

Table 13: Medical Treatment Received for Self Injuries Inflicted in the Four Weeks Prior to the Survey

	Male		*Female*		*Persons*	
	Count	%	Count	%	Count	%
Medical treatment	8	14.5	14	19.4	22	17.3
Emergency department attendance	0	0.0	3	4.1	3	2.4
Hospital admission	1	1.5	3	4.1	4	3.0

Note: Percentages are of column values

In terms of psychological or emotional support, 70.9% of males and 63.5% of females had not sought help for their self-injury in the four weeks prior to the survey (Table 14).

Table 14: Help seeking for Self-Injury in the Four Weeks Prior to the Survey

		Males		*Females*		*Persons*	
		Count	%	Count	%	Count	%
Help Seeking	Yes	16	29.1	27	36.5	43	33.3
	No	39	70.9	47	63.5	86	66.7
	Totals	*55*	*100.0*	*74*	*100.0*	*129*	*100.0*

Note: Percentages are of column values

Self-Injury and Suicidality

Respondents were asked whether they had ever attempted suicide. Among those who had ever self-injured, 32.9% had attempted suicide whereas among those who had never self-injured, 2.0% had attempted suicide (Table 15). **People who had ever self-injured were 24.0 times more likely to have attempted suicide.**

Table 15: Self-Injury and Suicide Attempts

	At least one suicide attempt		*No suicide attempt*		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Lifetime history of self-injury	317	32.9	647	67.1	964	100.0	24.0 (19.9–29.1)
No history of self-injury	216	2.0	10,597	98.0	10,813	100.0	

Note: lifetime history of self-injury was used here to correspond with the question about any suicide attempts in the respondents' lifetime

Respondents who reported a suicide attempt were asked whether at the time of the attempt, they had actually wanted to die. Of the **317** respondents with a lifetime history of self-injury and a suicide attempt, **59** reported that they did not actually want to die at the time of the suicide attempt and a further **28** reported that they did not know whether or not they wanted to die at the time of the attempt. Of the **216** respondents with no history of self-injury but who reported a suicide attempt, **54** reported that they did not actually want to die at the time and **17** reported that they did not know whether or not they wanted to die at the time of the suicide attempt. On the basis of these figures, **compared to people who had never self-injured, those who had ever self-injured were 26.0 times more likely to have attempted suicide** (Table 16).

Table 16: Self-Injury and Suicide Attempts with Certain Intent to Die

	At least one suicide attempt with certain intent to die		*No suicide attempt*		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Lifetime history of self-injury	230	26.2	647	73.8	877	100.0	26.0 (20.8–32.5)
No history of self-injury	145	1.3	10,597	98.7	10,742	100.0	

Note: lifetime history of self-injury was used here to correspond with the question about any suicide attempts in the respondents' lifetime

Over half (53.7%) of those who had self-injured within the four weeks prior to the survey experienced suicidal ideation in the few weeks prior to the survey compared to 7.7% of those who had not self-injured. **People who self-injured in the four weeks prior to the survey were 13.8 times more likely to experience suicidal ideation** (*Table 17*).

Table 17: Self-Injury and Suicidal Ideation

	Suicidal Ideation		No suicidal ideation		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	66	53.7	57	46.3	123	100.0	13.8 (9.6 – 19.8)
No self-injury over past 4 weeks	911	7.7	10,884	92.3	11,795	100.0	

Note: 4-week history of self-injury was used here to correspond with the suicidal ideation questions which asked about suicidal ideation over the past few weeks.

Self-Injury and Psychological Variables

General Mental Health

Respondents were asked 12 questions pertaining to their general mental health (the 12-item General Health Questionnaire). Of those who had self-injured in the four weeks prior to the survey, 72.3% obtained scores in the clinical range for mental health problems. Of those who had not self-injured in the four weeks prior to the survey, 20.6% reported clinically severe mental health problems. **People with clinically severe mental health problems were 10.0 times more likely to self-injure in the four weeks prior to the survey** (

Table 18).

Table 18: Self-Injury and General Mental Health

	[a]High Level of Mental Health Problems		[b]No Mental Health Problems		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	83	72.3	32	27.7	114	100.0	10.0 (6.6 – 15.2)
No self-injury over past 4 weeks	2,027	20.6	7,808	79.4	9,835	100.0	

[a]score of 4 through 12 on the General Health Questionnaire (12 item version)
[b]score of 0 or 1 on the General Health Questionnaire (12 item version)

Impulsivity

Respondents were asked if, in everyday life, they considered themselves to be impulsive. Of those who had self-injured in the four weeks prior to the survey, 34.9% reported being impulsive "very often" or "often". Of those who had not self-injured in the four weeks prior to the survey, 15.4% claimed to be impulsive "very often" or "often". **People who self-injured in the four weeks prior to the survey were 2.9 times more likely to report being impulsive** (*Table 19*).

Anger

Respondents were asked how frequently they lost their temper. Of those who had self-injured in the four weeks prior to the survey, 25.7% reported losing their temper "very often" or "often". Of those who had not self-injured in the four weeks prior to the survey, 9.4% reported losing their temper "very often" or "often." **People who self-injured in the**

four weeks prior to the survey were 3.3 times more likely to lose their temper (*Table 20*).

Table 19: Self-Injury and Impulsivity

	[a]Impulsive		[b]Not impulsive		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	45	34.9	84	65.1	129	100.0	2.9 (2.0 – 4.2)
No self-injury over past 4 weeks	1,818	15.4	9,978	84.6	11,796	100.0	

[a]Respondents who reported they were impulsive “very often” or “often”; [b]Respondents who reported they were impulsive “sometimes” or “never”

Table 20: Self-Injury and Anger

	Loses temper frequently*		Does not lose temper frequently¥		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	33	25.7	96	74.3	129	100.0	3.3 (2.2 – 4.9)
No self-injury over past 4 weeks	1,116	9.4	10,727	90.6	11,843	100.0	

*Respondents who reported they lost their temper “very often” / “often”; ¥Respondents who reported they lost their temper “sometimes” / “never”

Emotion Regulation

Respondents were asked two questions pertaining to emotion regulation; whether they were able to change the way they felt by changing their thoughts (cognitive reappraisal), and whether they controlled their emotions by keeping emotions to themselves (emotional suppression). Of those who had self-injured in the four weeks prior to the survey, 53.2% reported they were “never” able to change the way they felt about something by trying to change the way they thought about it. Of those who did not self-injure in the four weeks prior to the survey, 20.3% reported “never” being able to change the way they felt about something by trying to change the way they thought about it. **People who self-injured in the four weeks prior to the survey were 4.5 times more likely to have trouble regulating emotion using cognitive reappraisal** (Table 21).

Table 21: Self-Injury and Emotion Regulation – Cognitive Reappraisal

	[a]Ineffective Cognitive Reappraisal		***[b]Effective Cognitive Reappraisal***		***Totals***		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	17	53.2	15	46.8	31	100.0	4.5 (2.2 – 9.1)
No self-injury over past 4	514	20.3	2014	79.7	2529	100.0	

weeks			

[a]Ineffective Cognitive Reappraisal – ‘never’ able to change feelings by changing thinking
[b]Effective Cognitive Reappraisal - ‘always’ able to change feelings by changing thinking

People who had self-injured in the four weeks prior to the survey were **no more or less likely** to control their emotions by suppressing them compared to people who had not self-injured in the four weeks prior to the survey (*Table 22*).

Table 22: Self-Injury and Emotion Regulation - Suppression

	[a]Controls emotions by suppressing them		[b]Does not control emotions by suppressing them		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	71	55.2	58	44.8	129	100.0	1.0 (0.7 – 1.4)
No self-injury over past 4 weeks	6,612	56.0	5,202	44.0	11,814	100.0	

[a]Respondents who reported controlling their emotions by keeping them to themselves ‘always’ or ‘most of the time’
[b]Respondents who reported controlling their emotions by keeping them to themselves ‘occasionally’ or ‘never’

Alexithymia

Respondents were asked how often they had trouble finding words for their feelings. Of those who had self-injured in the four weeks prior to the survey, 50.5% reported they found it difficult to find the right words for their feelings “always” or “most of the time.” Of those who did not self-injure in the four weeks prior to the survey, 25.8% reported finding it difficult to find the right words for their feelings “always” or “most of the time.” **People who self-injured in the four weeks prior to the survey were 2.9 times more likely to have trouble finding the right words to describe their own feelings** (Table 23).

Table 23: Self-Injury and [a]Alexithymia

	[b]Alexithymic		[c]Not alexithymic		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	64	50.5	63	49.5	127	100.0	2.9 (2.1 – 4.2)
No self-injury over past 4 weeks	3,039	25.8	8,763	74.2	11,802	100.0	

[a]Alexithymia refers to a condition whereby an individual has trouble recognising and describing one’s own feelings
[b]Respondents who said they found it difficult to find the right words for their feelings ‘always’ or ‘most of the time’
[c] Respondents who said they found it difficult to find the right words for their feelings ‘occasionally’ or ‘never’

Coping

Respondents were asked how often they distracted themselves, blamed themselves and turned to family for support to cope with stress. People who had self-injured in the four weeks prior to the survey were **no more or less likely** to cope with stress by distracting themselves compared to people who had not self-injured in the four weeks prior to the survey (*Table 24*).

Table 24: Self-Injury and Coping with Stress by using Distraction

	[a]Does not use distraction		[b]Uses distraction		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	55	43.5	72	56.5	127	100.0	1.0 (0.7 – 1.4)
No self-injury over past 4 weeks	4,981	43.0	6,596	57.0	11,577	100.0	

[a]Respondents who reported using distraction to take their mind off things when very stressed ‘occasionally’ or ‘never’
[b]Respondents who reported using distraction to take their mind off things when very stressed ‘always’ or ‘most of the time’

Blaming the self seemed to be much more common in those who self-injured. Of those who had self-injured in the four weeks prior to the survey, 70.0% reported blaming themselves when they were very stressed “always” or “most of the time.” Of those who did not self-injure in the four weeks prior to the survey, 21.6% reported blaming themselves when they were very stressed “always” or “most of the time.” **People who self-injured in the four weeks prior to the survey were 8.5 times more likely to blame themselves when they felt very stressed** (*Table 25*).

Table 25: Self-Injury and Coping with Stress by Blaming the Self

	[a]Blames self		[b]Does not blame self		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	90	70.0	39	30.0	129	100.0	8.5 (5.8 – 12.3)
No self-injury over past 4 weeks	2,514	21.6	9,125	78.4	11,639	100.0	

[a]Respondents who reported blaming themselves when very stressed ‘always’ or ‘most of the time’
[b]Respondents who reported blaming themselves when very stressed ‘occasionally’ or ‘never’

People who had self-injured in the four weeks prior to the survey were much less likely to turn to their family for support. More than 70% reported “occasionally” or “never” turning to their family for support when they were very stressed. Of those who did not self-injure in the four weeks prior to the survey, only 47.0% reported “occasionally” or “never” turning to their family for support when they were very stressed. **People who self-injured in the four weeks prior to the survey were 2.7 times more likely not to turn to their family for support in times of stress** (*Table 26*).

Table 26: Self-Injury and Coping with Stress by Turning to Family for Support

	[a]Does not turn to family for support		[b]Turns to family for support		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	91	70.5	38	29.5	129	100.0	2.7 (1.8 – 3.9)
No self-injury over past 4 weeks	5,502	47.0	6,206	53.0	11,707	100.0	

[a]Respondents who reported ‘occasionally’ or ‘never’ turning to their family for support when very stressed
[b]Respondents who reported ‘always’ or ‘most of the time’ turning to their family for support when very stressed

Dissociation

Respondents were asked how often they felt that other people, objects, and the world around them were not real (derealisation), and how often they felt that their body was not real or did not belong to them (depersonalisation). Of those who had self-injured in the four weeks prior to the survey, 35.4% reported experiencing derealisation “always” or “most of the time.” Of those who did not self-injure in the four weeks prior to the survey, only 1.8% reported experiencing derealisation “always” or “most of the time.” **People who self-injured in the four weeks prior to the survey were 29.8 times more likely to experience derealisation** (

).

Table 27: Self-Injury and Dissociation – [a]Derealisation

	[b]Experiences derealisation		[c]Does not experience derealisation		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	60	35.4	110	64.6	170	100.0	29.8 (21.2 – 41.9)
No self-injury over past 4 weeks	212	1.8	11,528	98.2	11,741	100.0	

[a]derealisation is a psychological state whereby a person feels that other people, objects, and the world around them are not real
[b]respondents who experienced derealisation ‘always’ or ‘most of the time’
[c]respondents who experienced derealisation ‘occasionally’ or ‘never’

Of those who had self-injured in the four weeks prior to the survey, 7.0% reported experiencing depersonalisation “always” or “most of the time.” Of those who did not self-injure in the four weeks prior to the survey, 1.5% reported experiencing depersonalisation “always” or “most of the time.” **People who self-injured in the four weeks prior to the survey were 4.9 times more likely to experience depersonalisation** (*Table 28*).

Table 28: Self-Injury and Dissociation – [a]Depersonalisation

	[b]Experiences depersonalisation		[c]Does not experience depersonalisation		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	9	7.0	118	93.0	127	100.0	4.9 (2.4 – 9.9)
No self-injury over past 4 weeks	165	1.5	10,768	98.5	10,932	100.0	

[a]depersonalisation is a psychological state whereby a person feels that his or her body is not real or does not belong to them
[b]respondents who experienced depersonalisation 'always' or 'most of the time'
[c]respondents who experienced depersonalisation 'occasionally' or 'never'Psychiatric Diagnoses

Self-Injury and Psychiatric Diagnoses

Respondents were asked whether, in the past 12 months, they had been told by a doctor that they had had various mental health diagnoses. Results are based on respondents' self report. Parents answered this section on behalf of their child for young people aged 10-17.

Respondents Aged 18+ Years

In general, it appears that those who self-injure are more likely to be diagnosed with a mental disorder. Of those who reported having been diagnosed with **anxiety** in the 12 months prior to the survey, 46.3% had self-injured in the four weeks prior to the survey. Of those who had not been diagnosed with anxiety, 13.3% had self-injured. **Respondents with anxiety were 5.6 times more likely to have self-injured in the four weeks prior to the survey** (Table 29).

Of those who reported having been diagnosed with **depression** in the 12 months prior to the survey, 3.1% had self-injured in the four weeks prior to the survey. Of those who had not been diagnosed with depression, 0.5% had self-injured. **Respondents with depression were 6.6 times more likely to have self-injured in the four weeks prior to the survey** (Table 29).

Of those who reported having been diagnosed with **ADHD** (Attention Deficit Hyperactivity Disorder) in the 12 months prior to the survey, 7.4% had self-injured in the four weeks prior to the survey. Of those who had not been diagnosed with ADHD, 0.9% had self-injured. **Respondents with ADHD were 8.9 times more likely to have self-injured in the four weeks prior to the survey** (Table 29).

Of those who reported having been diagnosed with **PTSD** (Post Traumatic Stress Disorder) in the 12 months prior to the survey, 3.5% had self-injured in the four weeks prior to the survey. Of those who had not been diagnosed with PTSD, 0.9% had self-injured. **Respondents with PTSD were 4.0 times more likely to have self-injured in the four weeks prior to the survey** (Table 29).

Table 29: Self-Injury and Selected Psychiatric Diagnoses in Respondents Aged 18+

		Self-injury over past 4 weeks						
		Yes		*No*		*Totals*		
		Count	%	Count	%	Count	%	OR (95% CI)
Anxiety	Yes	48	46.3	56	53.7	104	100.0	5.6 (3.8 – 8.3)
	No	1,380	13.3	9,022	86.7	10,403	100.0	
Depression	Yes	62	3.1	1,941	96.9	2,003.6	100.0	6.6 (4.4 - 9.8)
	No	41	0.5	8,462	99.5	8,503.0	100.0	
ADHD	Yes	11	7.4	138	92.6	149	100.0	8.9 (4.7 - 17.0)
	No	93	0.9	10265	99.1	10,357	100.0	
PTSD	Yes	12	3.5	337	96.5	349	100.0	4.0 (2.1 - 7.3)
	No	92	0.9	10066	99.1	10,158	100.0	

Respondents Aged 10-17 Years

Similarly, young people who self-injure were much more likely to be diagnosed with depression. Of those who reported having been diagnosed with **depression** in the 12 months prior to the survey, 28.6% had self-injured in the four weeks prior to the survey. Of those who had not been diagnosed with depression, 1.1% had self-injured. **Respondents with depression were 37.1 times more likely to have self-injured in the four weeks prior to the survey** (

).

Table 30: Self-Injury and Depression in Respondents Aged 10-17 Years

		Self-injury over past 4 weeks						
		Yes		*No*		*Totals*		
		Count	%	Count	%	Count	%	OR (95% CI)
Depression	Yes	10	28.6	25	71.4	35	100.0	37.1 (15.2 - 90.6)
	No	15	1.1	1409	98.9	1,425	100.0	

Self-Injury, Tobacco Smoking and Drinking to Get Drunk

Respondents were asked whether they smoked tobacco and how often they drank alcohol specifically to get drunk. Among those who had self-injured in the four weeks prior to the survey, 46.3% were current tobacco smokers compared to 18.8% of people who hadn’t self-injured. **People who had self-injured in the four weeks prior to the survey were 3.7 times more likely to smoke cigarettes** (*Table 31*).

Table 31: Self-Injury and Tobacco Smoking

	Current Smoker		Not a current smoker		Totals		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	57	46.3	66	53.7	123	100.0	3.7 (2.6 – 5.3)
No self-injury over past 4 weeks	2,058	18.8	8,908	81.2	10,966	100.0	

Among those who had self-injured in the four weeks prior to the survey, 65.2% reported drinking to get drunk (weekly, monthly or yearly) compared to 26.9% of people who hadn't self-injured. **People who self-injured in the four weeks prior to the survey were 5.1 times more likely to drink to get drunk** (Table 32).

Table 32: Self-Injury and Drinking to Get Drunk

	Weekly, monthly or yearly		*Never*		*Totals*		
	Count	%	Count	%	Count	%	OR (95% CI)
Self-injury over past 4 weeks	58	65.2	31	34.8	89	100	5.1 (3.3 – 7.9)
No self-injury over past 4 weeks	2,394	26.9	6,518	73.1	8,912	100	

Self-Injury and Illicit Drug Use

Respondents were asked whether they had ever used a range of illicit drugs, and if so, how often they had used them. People who had ever self-injured were more likely to have experimented with illicit drugs (Table 33) *and* more likely to have had a history of regular use of illicit drugs (Table 34), compared to people who had never self-injured. The illicit drugs included in the survey were inhalants, heroin, amphetamines, ecstasy, marijuana, cocaine and LSD. Self-injury was most strongly related to experimental and regular use of inhalants and heroin.

Table 33: Self-Injury and Illicit Drug Experimentation

		Lifetime history of self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Ever used marijuana	Yes	609	62.9	3,367	31.2	3.7 (3.3 – 4.3)
	No	359	37.1	7,436	68.8	
	Totals	*968*	*100.0*	*10,803*	*100.0*	
Ever used amphetamines	Yes	253	25.6	912	8.4	3.8 (3.3 – 4.5)
	No	720	74.4	9,895	91.6	
	Totals	*968*	*100.0*	*10,803*	*100.0*	
Ever used ecstasy	Yes	211	21.7	733	6.8	3.8 (3.2 – 4.5)
	No	761	78.3	10,080	93.2	
	Totals	*972*	*100.0*	*10,813*	*100.0*	
Ever used inhalants	Yes	71	7.3	146	1.3	5.7 (4.3 – 7.7)
	No	903	92.7	10,669	98.7	
	Totals	*974*	*100.0*	*10,815*	*100.0*	
Ever used heroin	Yes	51	5.2	105	1.0	5.6 (4.0 – 7.9)
	No	923	94.8	10,709	99.0	
	Totals	*974*	*100.0*	*10,814*	*100.0*	
Ever used cocaine	Yes	138	14.2	480	4.4	3.6 (2.9 – 4.4)
	No	836	85.8	10,336	95.6	
	Totals	*974*	*100.0*	*10,816*	*100.0*	
Ever used LSD	Yes	157	16.2	570	5.3	3.5 (2.9 – 4.2)
	No	815	83.8	10,240	94.7	
	Totals	*972*	*100.0*	*10,810*	*100.0*	

Table 34: Self-Injury and Regular Illicit Drug Use

		Lifetime history of self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Regular use of marijuana	Yes	375	38.7	1,609	14.9	3.6 (3.1 – 4.2)
	No	593	61.3	9,194	85.1	
	Totals	*698*	*100.0*	*10,803*	*100.0*	
Regular use of amphetamines	Yes	127	13.1	416	3.9	3.7 (3.0 – 4.6)
	No	846	86.9	10,391	96.1	
	Totals	*968*	*100.0*	*10,803*	*100.0*	
Regular use of ecstasy	Yes	102	10.5	323	3.0	3.8 (3.0 – 4.8)
	No	870	89.5	10,490	97.0	
	Totals	*972*	*100.0*	*10,813*	*100.0*	
Regular use of inhalants	Yes	18	1.8	42	0.4	4.8 (2.8 – 8.4)
	No	956	98.2	10,773	99.6	
	Totals	*974*	*100.0*	*10,815*	*100.0*	
Regular use of heroin	Yes	23	2.4	46	0.4	5.7 (3.4 – 9.4)
	No	951	97.6	10,768	99.6	
	Totals	*974*	*100.0*	*10,814*	*100.0*	
Regular use of cocaine	Yes	44	4.5	154	1.4	3.3 (2.3 – 4.6)
	No	930	95.5	10,662	98.6	
	Totals	*974*	*100.0*	*10,816*	*100.0*	
Regular use of LSD	Yes	57	5.9	131	1.2	5.1 (3.7 – 7.0)
	No	915	94.1	10,679	98.8	
	Totals	*972*	*100.0*	*10,810*	*100.0*	

Self-Injury and Trauma

Neglect

Respondents were asked if, as children, they had ever experienced neglect from one or more parents. Among adults who had ever self-injured, 36.9% reported a history of parental neglect compared to 12.8% of adults who did not self-injure. **Adults who had ever self-injured were 4.0 times more likely to report neglect** (Table 35). Among young people who had ever self-injured, 3.9% reported parental neglect compared to 0.8% of those who did not self-injure. **Young people who had ever self-injured were 6.4 times more likely to report neglect** (Table 36).

Table 35: Self-Injury and Neglect among Respondents Aged 18+

		Lifetime self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Neglect	Yes	315	36.9	1,208	12.8	
	No	539	63.1	8,248	87.2	4.0 (3.4 – 4.6)
	Totals	*854*	*100.0*	*9,456*	*100.0*	

Table 36: Self-Injury and Neglect among Respondents Aged 10-17 Years

		Lifetime self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Neglect	Yes	33	3.9	72	0.8	
	No	67	7.8	937	9.9	6.4 (4.0 – 10.4)
	Totals	*100*	*100.0*	*1,009*	*100.0*	

Physical Abuse

Respondents were asked if, as children, they had ever been physically abused, attacked or assaulted. Among adults who had ever self-injured, 38.5% reported a history of physical abuse compared to 13.5% of adults who did not self-injure. **Adults who had ever self-injured were 4.1 times more likely to report physical abuse** (Table 37). Among young people who had ever self-injured, 37.2% reported physical abuse compared to 10.8% of those who did not self-injure. **Young people who had ever self-injured were 4.9 times more likely to report physical abuse** (Table 38).

Table 37: Self-Injury and Physical Abuse among Respondents Aged 18+

		Lifetime self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Physical abuse	Yes	329	38.5	1,280	13.5	
	No	517	60.5	8,154	86.2	4.1 (3.5 – 4.7)
	Totals	*846*	*100.0*	*9,434*	*100.0*	

Table 38: Self-Injury and Physical Abuse among Respondents Aged 10-17 Years

		Lifetime self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Physical abuse	Yes	42	37.2	141	10.8	4.9 (3.2 – 7.4)
	No	71	62.8	1,164	89.2	
	Totals	*113*	*100.0*	*1,305*	*100.0*	

Sexual Abuse

Respondents were asked if, as children, they had ever been sexually abused or assaulted. Among adults who had ever self-injured, 25.5% reported a history of sexual abuse compared to 7.9% of adults who did not self-injure. **Adults who had ever self-injured were 4.0 times more likely to report sexual abuse** (Table 39). Among young people who had ever self-injured, 13.4% reported sexual abuse compared to 1.1% of those who did not self-injure. **Young people who had ever self-injured were 13.4 times more likely to report sexual abuse** (Table 40).

Table 39: Self-Injury and Sexual Abuse among Respondents Aged 18+

		Lifetime self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Sexual abuse	Yes	215	25.5	743	7.9	4.0 (3.4 – 4.8)
	No	629	74.5	8,714	92.1	
	Totals	*844*	*100.0*	*9,457*	*100.0*	

Table 40: Self-Injury and Sexual Abuse among Respondents Aged 10-17 Years

		Lifetime self-injury				
		Yes		*No*		
		Count	%	Count	%	OR (95% CI)
Sexual abuse	Yes	15	13.4	15	1.1	13.4 (6.4 – 28.2)
	No	97	86.6	1301	98.9	
	Totals	*112*	*100.0*	*1,316*	*100.0*	

Chapter 4: Summary, Recommendations and Future Research

Summary

If we accept that the ANESSI survey was administered to a representative sample of the Australian population in terms of age distribution, education, mental status and where they live, the results indicate the four week prevalence of self-injury in the Australian population to be **1.1%** (or an estimated 242,000 Australians, based on a population of 22,000,000, or a rate of 11 people per 1000 people), with slightly higher levels in females (1.2%, n=74) than males (0.9%, n=55). For women, self-injury peaked in the age group 18-24, and for males, self-injury peaked in the age group 25-34. Among Indigenous respondents the prevalence of self-injury was higher (4.2%, n=4), but the sample size was small (n=183) and so the results must be interpreted with caution.

For lifetime data, the overall prevalence of self-injury was 8.1% (n=977), with a higher prevalence in females (8.9%, n=542) than males (7.3%, n=435). Note that overall lifetime prevalence has limited meaning as the sample included people with variable lifetimes. Nonetheless, at the very least this suggests that self-injury is a relatively common experience.

The four most common methods of self-injury were cutting, scratching, hitting the body or a part of the body on a hard surface, and punching or hitting oneself. Over half of those who reported self-injury claimed to be motivated by a desire to manage their emotions, and over one quarter self-injured to punish the self. These results further refute the idea that people self-injure in order to get attention and manipulate others, although the self report nature of the survey is a limitation in this sense.

The majority of respondents (83%) who self-injured in the four weeks prior to the survey did not receive medical attention, most likely because their injuries were not of a severe nature. In addition, a very high proportion did not seek psychological or emotional support for their self-injury (71% of males and 64% of females). The lack of help seeking reflects the secrecy of the behaviour and suggests that it will remain hidden in society.

Self-injury was strongly associated with suicide ideation and suicide attempts. People who self-injured were more likely to suffer from general mental health problems at a clinical level and have more trouble with impulsivity, aggression, emotion regulation, coping and dissociation. In this sample, among adults, self-injury was associated with depression, anxiety, ADHD and PTSD. Among young people, self-injury was associated with depression. Respondents who had self-injured in the four weeks prior to the survey were more likely to be current smokers and more likely to drink to get drunk. They were also more likely to have used a range of illicit drugs. Respondents who had ever self-injured were more likely to have experienced childhood neglect, physical abuse and sexual abuse.

The respondents who reported self-injury are, in many ways, a troubled group at higher risk of psychological morbidity and mortality by suicide than the general population. The proportion of self-injury among males and females was not very different, perhaps challenging the traditional view that self-injury is more prevalent in females, although females were more likely to seek help for their self-injury. The statistical significance of this difference will be explored in future analyses.

In the four weeks prior to the survey, four respondents were admitted to hospital due to their self-injury (0.03% of the entire sample). This is an estimated 7,000 Australians admitted to hospital over a four week period due to self-injury. According to the Australian Institute of Health and Welfare[1], one hospital separation[2] in the public system costs approximately $3,542.00. **A rough estimate of the cost of self-injury to the Australian health system according to hospitalisation *alone* is $24,794,000.00 over a four week period.**

As with most population-based studies investigating sensitive topics, our study suffers from several sources of bias. Only households with a landline *and* with their number publicly listed could be contacted, therefore ruling out those who were only using a mobile phone at the time (a large proportion of the young adult population), and those who had no telephone at all (i.e. people residing in very rural areas, boarding accommodation, and the homeless). Future studies should use a range of methods to contact respondents (i.e. landlines, mobile phones, the internet, email, and door-to-door). The low 'agreement to interview,' due to the general decline in telephone interview response rates in Australia, the sensitive nature of the topic, and the ethical requirements of the project which required us to post respondents large amounts of information in the mail may have needlessly overwhelmed and alarmed potential respondents and may have produced a sample unrepresentative of the Australian population. This situation is unlikely to change as the ethical rights of participants must be maintained at all costs. Recruiting a larger sample and through a variety of means might improve the representativeness of population-based samples.

Additionally, all interview-based, self-report data is vulnerable to recall bias (not remembering correctly) and response bias (answering questions in the way the respondent

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[1] Australian Institute of Health and Welfare 2008. *Australian hospital statistics 2006-07*. Health services series no. 31. Cat. no. HSE 55. Canberra: AIHW, page 324.

[2] A hospital separation is an episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care either by being discharged, dying, transferring to another hospital or changing type of care (AIHW, 2008, page 370 in the above document).

thinks the interviewer wants them to answer rather than truthfully). This can be overcome in future studies by using self report data in conjunction with third party reports.

Clinical Recommendations

Future Research

Future research should examine self-injury among respondents who were unlikely to have been included in our sample, i.e, those with only mobile phones and those with no access to a landline, to supplement this data and more fully represent the Australian population.

- Examine self-injury among Indigenous Australians using culturally appropriate surveys and methodologies.
- Replication of ANESSI in other countries to draw cross-cultural comparisons.
- Build on the results from this cross-sectional study by doing a longitudinal study of self-injury to elucidate the causal, mediating and moderating factors of self-injury.
- Establish the extent to which hospital admissions data correspond to population-based data.
- Complete various biological studies to ascertain the mechanism by which self-injury is successful in relieving distress.

Appendix: Summary of Survey Questions

Introduction and Consent

The survey begins with an introduction and the interviewer will ask whether you consent to doing the interview. If you say yes, the interviewer will tell you that you can refuse to answer any question and/or stop the interview at any time.

A. Initial Demographics

A.1 What is your date of birth?

A.2 What is your gender?

A.3 What is your postcode?

B. Mental Wellbeing

Over the past few weeks…

B.1 …have you been able to concentrate on what you're doing?

B.2 …have you lost much sleep over worry?

B.3 …have you felt you were playing a useful part in things?

B.4 …have you felt capable of making decisions about things?

B.5 …have you felt constantly stressed?

B.6 …have you felt you couldn't overcome your difficulties?

B.7 …have you been able to enjoy your normal day to day activities?

B.8 …have you been able to face up to your problems?

B.9 …have you been feeling unhappy and depressed?

B.10 …have you been losing confidence in yourself?

B.11 …have you been thinking of yourself as a worthless person?

B.12 …have you been feeling reasonably happy, all things considered?

B.13 Are you able to change the way you feel about something by trying to change the way you think about it?

B.14 Do you control your emotions by keeping them to yourself?

B.15 Do you find it difficult to find the right words for your feelings?

When you are very stressed how often do you…

B.16 …do other things to take your mind off things?

B.17 …blame yourself for things that happened?

B.18 …turn to your family for support?

B.19 Sometimes people feel that other people, objects, and the world around them are not real. How often does this happen to you?

B.20 Sometimes people feel that their body does not belong to them. How often does this happen to you?

In everyday life...

B.21 …do you lose your temper?

B.22 …are you impulsive?

C. Self–Injury

The following questions are about self-injury. Self-injury means deliberately hurting yourself or any part of your body without meaning to kill yourself. Remember that if you feel uncomfortable you can decline to answer these questions.

C.1 Over the past four weeks have you self-injured? If no, go to question C.19. If yes, ask:

C.2 I'm going to read out a list of ways that people self-injure. After each one, please say 'yes' if you have done this in the last 4 weeks or 'no' if you haven't [interviewer reads out list]

C.3 Do you feel pain when you self-injure?

C.4 How many times or sessions of self-injury did you have over the past 4 weeks?

C.5 In your opinion, what would be the main reason why you self-injure?

C.6 How old were you the first time you self-injured?

C.7 Do any family members or friends know about your self-injury?

C.8 Over the past 4 weeks have you asked anyone for help with your self-injury?

If yes, ask:

C.9 Who have you asked for help with your self-injury?

C.10 Over the past 4 weeks did you have medical treatment because of your self-injuries?

If yes, ask:

C.11 Over the past 4 weeks have you attended an emergency department because of any of your self-injuries?

C.12 Over the past 4 weeks have you had to be admitted to hospital because of any of your self-injuries?

If yes, ask:

C.13 How many days in total have you stayed in hospital as a result of your self-injuries over the past 4 weeks?

C.14 Have you ever tried to reduce or stop self-injuring?

If yes, ask:

C.15 Were you successful in reducing or stopping?

If yes, ask:

C.16 What helped you to reduce or stop?

C.17 Right now do you want to stop self-injuring?

C.18 What might be some reasons for not getting help with self-injury?

If no self-injury in the past 4 weeks, ask:

C.19 Have you ever, in your lifetime, self-injured?

If yes, ask:

C.20 I'm going to read out a list of ways that people self-injure. After each one, please say 'yes' if you have ever done this or 'no' if you haven't [interviewer reads out list]

C.21 How old were you the first time you self- injured?

C.22 When was the last time you self-injured?

C.23 What helped you stop self-injury?

D. Suicide

Now I'm going to ask you some questions about when life may not be worth living. Over the past few weeks have you…

D.1 …felt that life isn't worth living?

D.2 …thought of the possibility that you might do away with yourself?

D.3 …found yourself wishing you were dead and away from it all?

D.4 ...found the idea of taking your own life kept coming into your mind?

D.5 Have you ever tried to kill yourself?

If yes, ask:

D.6 How many times have you tried to kill yourself?

D.7 How old were you when you [first] tried to kill yourself?

For those reporting more than one attempt:

D.8 How old were you when you [first] tried to kill yourself?

D.9 When did you attempt to kill yourself most recently?

D.10 At the time did you actually want to die?

D.11 Are you now glad you survived?

D.12 How did you attempt to kill yourself - what did you actually do?

D.13 Did an ambulance come because of the attempt?

D.14 Did you go to an emergency department?

D.15 Did you stay in hospital overnight?

If yes, ask:

D.16 How many nights did you stay in hospital?

E. Psychiatric History

This section is answered by the parent on behalf of young people aged 10-17 years.

E.1 In the last 12 months have you been told by a doctor that you have anxiety, depression, Attention Deficit Hyperactivity Disorder (ADHD), Post Traumatic Stress Disorder (PTSD) or any other mental health problem?

If yes, ask:

E.2 Do you still have this mental health problem?

E.3 Are you currently receiving treatment for this mental health problem?

F. Sexual Orientation

This section is not asked of respondents aged less than 14 years.

F.1 Which of the following best describes you?

- Heterosexual (straight)
- Homosexual (gay/lesbian)
- Bisexual (bi)
- Other
- Don’t know/unsure

G. Trauma

Now I would like to ask you about stressful or upsetting events that sometimes happen to people. Remember that if you feel uncomfortable you can decline to answer these questions.

G.1 Did you ever experience neglect from one or more parents?

G.2 During your childhood, were you ever physically abused, attacked or assaulted?

If yes, ask:

G.3 Who physically abused, attacked or assaulted you?

G.4 During your childhood, were you ever sexually abused or assaulted?

If yes, ask:

G.5 Who sexually abused or assaulted you?

H. Service Use

H.1 Have you ever used a telephone help line to help with your mental health?

If yes, ask:

H.2 Which telephone help line did you used most recently?

H.3 How much did the telephone line help?

H.4 Have you ever used the internet to access mental health websites?

If yes, ask:

H.5 Which mental health website did you use most recently?

H.6 How much did the website help?

I. Substance Use

I.1 Do you smoke?

If yes, ask:

I.2 On average how many cigarettes do you smoke per day or each week?

I.3 How often do you usually drink alcohol?

If respondent drinks alcohol, ask:

I.4 On a day or night when you drink, how many standard drinks, on average, would you have?

I.5 How often do you drink specifically to get drunk?

I.6 Have you ever used marijuana, amphetamines, ecstasy, inhalants, heroin, cocaine, LSD or any other illegal drugs?

If yes for any, ask:

I.7 How many times?

Demographics

Z.1 What country were you born in?

If Australia, ask:

Z.2 Are you Aboriginal or Torres Strait Islander?

Z.3 What is the main language spoken in your home?

Z.4 to Z.6 not answered for respondents aged 10-17

Z.4 What is your current marital status?

Z.5 What is the highest qualification that you have obtained?

Z.6 What is your work status?

End of Interview

The interviewer will thank you for your time, answer your questions and give you the contact numbers of Lifeline (13 11 14), Kids Help Line (1800 55 1800), the ANESSI Information Line (1800 700 954) and the ANESSI Information Email anessi@uq.edu.au.