

## Cost Benefit Analysis of Indigenous Healing Centres

### Overview and Context

The Healing Centre initiative is driven by the Aboriginal & Torres Strait Healing Foundation (ATSHF). The ATSHF is a national Aboriginal and Torres Strait Islander organisation that partners with communities to address the ongoing trauma caused by actions like the forced removal of children from their families.

One of its main strategies for addressing indigenous trauma is the provision of healing based therapeutic initiatives aimed at urban, regional and remote Australia and the support of healing across the *Community* for men, women, families & cultural practices (KPMG, 2012)

A prospective Cost Benefit analysis of healing centres was undertaken by the Deloitte Access Economics for the ATSHF in July 2014 (Deloitte, 2014) in order to better understand the potential benefits from developing healing centres within indigenous communities and to highlight the intent of the proposed healing program in addressing indigenous trauma and supporting communities to improve their lives. This report also undertook an extensive literature review on the links between indigenous trauma and low socio economic indicators including incarceration, family violence, education and economic participation and health statistics.

The approach of the healing centre program model is designed around indigenous *Community* ownership. This potentially will lead to a more appropriately designed healing program for a targeted *Community* with correspondingly greater design and implementation costs. The core characteristics of the indigenous healing centre program are summarised below and adapted from Caruana (2010, p.9):

Indigenous ownership, design and evaluation of services	Informed by an Indigenous, not a western, worldview and using culturally sensitive screening and assessment tools.
Holistic and multidisciplinary approach	Addressing mental, physical, emotional and spiritual needs with a focus on familial and community interconnectedness, as well as connectedness to the environment and the spiritual realm.
Centrality of culture and spirituality	Cultural renewal is seen by some as an essential precursor to healing.
Informed by history	Being cognisant of the historical source of trauma rather than focusing too strongly on the individual pathology.
Adopting a positive, strength based approach	Recognising and promoting the resilience of Indigenous people.
Preventative and therapeutic strategies	Rather than reactive responses that merely seek to reduce symptoms.
Commitment to healing	As a process – a journey that takes time rather than a one-off event.
Commitment to adaptability, flexibility and innovation	Programs must be inclusive to ensure they reach people who may not have strong cultural ties and to incorporate localised practices.
Utilisation of particular approaches best suited to the indigenous context	Programs to include approaches such as narrative therapy, group processes and a combination of western and traditional practices, such as the use of traditional healers or Ngangkari.

It is the intent of this analysis to critically review the identified costs and benefits of the healing centre program and rework the identified values using more relevant and up to date statistics and research findings.

## **SECTION 1: SPECIFY SET OF ALTERNATIVE PROJECTS**

The focus of the Healing Centre initiative is addressing the inter-generational trauma within indigenous communities and is unique in approach in that it aims to address the source of the damage through facilitating a *Community* orientated, culturally focused healing process.

Many of the government funded services and programs offered to indigenous communities aim to manage the impact of trauma (i.e. provide domestic violence shelters for women being abused or offer correctional services programs for young offenders). Most services focus on managing the impacts that are a result of trauma rather than attempting to address the source of the problem.

Due to the unique approach of the healing centre program it makes sense to compare the costs and benefits of this program against the 'usual care' state (i.e. status quo) rather than against alternatives strategies which are difficult to compare and/or perhaps don't even exist. In addition, the healing centre program is a new initiative with a proactive focus that has no similar alternative option for investment and is funded through various donations, fund-raising and grants that are specific to the project.

The aim of the healing centre program is to focus on a particular indigenous *Community* (urban, remote, regional) and work with that *Community* to provide healing therapy in conjunction with *Community* driven cultural and spiritual revival. It is proposed that this cost benefit analysis look at the effect of one healing centre (or healing therapy program) within a 'generic' *Community*. We expect one healing centre implemented in one isolated *Community* to positively affect a much wider stakeholder group than those who directly access the program. Evidence suggests that *Community* based healing projects can have far reaching effects due to extended family groups and cultural connections (Caruana, 2010, p.9)

This cost benefit analysis of healing centres, due to the nature of the proposed program, is significantly focused on social issues and the costs and benefits will be ascertained from social indicators or cost of providing social services. The majority of the benefits of this analysis will be the reduction of the cost of providing social service responses to the effects of trauma, and the value of improvement in a person's life (i.e reduced family violence).

Although focused on a generic *Community* (in trying to ascertain the net social value for that *Community*) this cost benefit analysis will attempt to show that investment in

healing centre programs can achieve partial equilibrium for the indigenous social investment sector. This cost benefit analysis will attempt to show that investment in indigenous sector through the healing centre program can maximise government investment in social service provision (i.e. by reducing demand for reactive services and/or improving the interaction between main stream services and indigenous people creating greater 'return on investment'). It is proposed that investment in addressing trauma rather than investment in responding to trauma related affects improves not only the lives of those involved in the program but increases the return on investment of other government initiatives. This cost benefit analysis will attempt to demonstrate the net social benefit of investing in a healing centre program through analysis of the effect on *Community* social indicators, improvement in effectiveness of mainstream social services, the improvement in *Community* welfare and the optimality of 'indigenous' investment of government.

## **SECTION 2: WHAT BENEFITS AND COSTS COUNT**

There is significant challenge ascertaining what benefits and costs count in this analysis without understanding the intent of the healing centre project and documented links between the effect of trauma on a person's life. If a healing intervention is effective we should see positive improvements in the activity and lifestyle of individual recipients.

To add to complexity the healing centre project is aimed at addressing indigenous intergenerational trauma with a philosophy of addressing the cultural and spiritual fraction that had developed through colonialization and mainstream policy and practice (Grieves, 2009). There is very little research on the measurement or monitoring of the effects of loss of culture or spirituality for indigenous people or the understanding of its value (Coutre, Parker, Couture and Laboucane, 2001).

For the purpose of this cost benefit analysis the value placed on cultural and spiritual loss cannot be measured or understood enough to include as a cost or benefit however, it should be noted that as a main focus of the healing centre project we can assume there are benefits derived from assisting people to reconnect with culture and spirituality albeit not measurable (Waldron 2008).

For the purpose of trying to understand how to measure costs and benefits of a healing centre program and to determine what costs matter we will limit this analysis to the possible impact of one healing centre project implemented within one 'generic' indigenous *Community*. This will help limit the number and variants of relevant costs and benefits and identify the average impact within one predefined *Community*.

### **SECTION 3: THE COSTS AND BENEFITS RELEVANT TO OUR COMMUNITY**

**The type of *measurable costs* associated with the healing centre program can be categorised as follows;**

A. Actual physical cost of developing and setting up a healing centre program within a *Community*.

**The type of *measurable benefit* associated with the healing centre program can be categorised as follows;**

B. Reduction in trauma related affects (social indicators linked to trauma induced behaviour)

C. Economic contribution of healing centre through direct and indirect job creation & employment

The link between therapeutic healing interventions and benefits is set out in a review of Australian and international evidence by Williams, Guenther, and Arnott (2011).

The evidence found that indigenous healing can result in:

- Reduction in suicide
- Improvement in mental health
- Reduce pressure on health system
- Improve engagement with education
- Reduce domestic violence
- Reduce substance abuse
- Improve social inclusion, economic participation
- Reduce recidivism rates amongst criminal offenders
- Enable reconciliation
- Improve collaboration between mainstream and aboriginal services
- Enable intergenerational learning
- Reduce rates of sexual and physical violence

It is proposed that these links between healing interventions and trauma related indicators be used as measures of benefits (or reduction in cost) of healing centre programs. For the purpose of this analysis the trauma related affects will be included where there is sufficient research and statistics that demonstrate linkage between indigenous healing programs and outcomes and where cost/benefits can be identified and quantified.

The identified and measurable costs and benefits are summarised below:

**A: Actual cost of developing and setting up a healing centre program within a Community**

In 2012, KPMG ( 2012) conducted a report on the Healing Centre methodology, intent, focus and cost relating to setting up and implementing a Health Centre program. The report identified start-up cost which include Entity establishment (as each healing centre would be a separate *Community* owned entity) and Physical space costs (renting and/or building of suitable healing space, equipment costs). Ongoing costs of operating a healing centre would be staff costs (4 x skilled positions), 2x support staff, rent, administrative, financial and operational expenses. Due to the nature of the healing centre methodology effectiveness of healing programs depend on the provision of the program for several years. Recommendations for effective healing centre outcomes include a minimum service ideal of 5 years plus. The operational costs for the healing centre program for at least five years would need to be included in addition to the one-off start-up costs of each centre.

**B: Reduction in Trauma related affects:**

Derived from the result of trauma as identified from Williams, Guenther, and Arnott (2011)

Trauma related affects (reduction in)	Possible Measure
<b>Affect 1.</b> Substance Abuse & Mental Health	Cost of mainstream counselling services, cost of primary health support (drugs, clinics) Cost of disability support services (inc Centrelink benefits): Cost of life, Cost of suicide support services, cost of ancillary intervention (police, mental health services)
<b>Affect 2.</b> Domestic & Family Violence	Cost of domestic violence including cost of support and intervention services, cost on victim, cost of court/correctional services for offender. In addition, the cost of forced removal of children from an abusive environment (i.e. foster care) could be an additional cost cause by family violence.
<b>Affect 3.</b> Suicide	Cost of suicide including intervention and service cost, response services, social costs, cost of life

<b>Affect 4.</b> Incarceration & Recidivism	Cost of correctional services, cost of imprisonment, cost to <i>Community</i>
---	---

The possible measurement of the cost and proposed reduction in cost are available from specific research on each factor so that we can measure the social and economic cost of each trauma related event. As per Williams, Guenther, and Arnott (2011) The challenge will be evaluating how much reduction in each cost will be attributable to a healing centre project. There is international research on the benefits of indigenous healing which might shed light on the measurement of the impact on socio economic indicators (Castellano, 2006, p.122) however, applying this to the Australian indigenous sector might have its limitations.

## SECTION 4: MEASURING COSTS & BENEFITS

### A. Cost of the Healing Centre Program

Both the start-up costs and operational costs of providing a healing centre program within a *Community* were identified by KPMG (2012) in their report on healing centre methodology. These items are listed with current estimates on cost.

#### Healing Centre Program Setup and Operational Costs

	Year 1
<b>Setup Costs</b>	
Entity Establishment Costs	3500
Equipment & Fitout	20000
Motor Vehicle Purchase/Lease	45000
<b>Staff Costs</b>	
4 X Practioner Level Wages & Oncosts	391000
2 x Support Staff Wages & Oncosts	92000
Training & Mentoring Support	15000
Travel & Accommodation	15000
<b>Community Centre Costs</b>	
Rent	25000
Motor Vehicle Running Costs	7000
Electricity	5000
Communications & IT	2500
Cleaning & Amenities	2500
Program Costs	6000
<b>Administrative Support</b>	
Accounting	10000
Office Supplies	2500
Meeting Costs	8000

Total Cost

---

650,000

---

## **B. Understanding the Benefits (Or reduction in trauma induced behaviour)**

*The main challenges for undertaking the cost benefit analysis of healing centre programs is determining attributable benefits of the program. The first challenge is understanding the links between trauma and trauma related affects. The second is identifying and understanding the related statistics of trauma related affects within the indigenous context.. Thirdly, we will try and understand the net social cost of each trauma related affect. Lastly, will attempt to determine how much benefit (or reduction of cost) can potentially be linked to the implementation of a healing centre program.*

In order to try and understand and value the effect of a *Community*-wide healing program some assumptions on what this '*Community*' is and who will participate in the healing program will be made. These assumptions will affect the outcome and the value placed on this and will force an average outcome and average cost to result.

There is much literature evaluating various healing program methodologies and practices. This analysis will not attempt to define effective healing practice or methodology but will assume the definition of healing centre is defined by that suggested in the Healing Foundation Healing Centre Report (Caruana, 2010, p3)

For the purposes of understanding the effect of a healing program it is easier to understand results in the context of an average *Community* who have a *Community*-wide healing centre program based on the methodology of 'healing centre' as defined by the ATSHF (Deloitte 2015).

The definition of '*Community*' within this cost benefit analysis will be based on an average *Community* of 400 people (200 adults, 50 Juvenilles & 150 children (under 10yrs)). The *Community* will be majority of indigenous descent. The Healing Program within this analysis will be setup to provide an array of healing projects aimed at reaching all *Community* members either directly or indirectly. The Healing Centre will incorporate a holistic approach in that it aims to reach people who have experienced trauma in one way or another, either directly as perpetrator or as victim or experienced a close connection to trauma or the effects of trauma.

As summarised in Section 2, many studies have been undertaken to show clear linkage between trauma and socio-economic indicators. These indicators have been identified and will be discussed in turn to identify the links to trauma, the related statistics, the related cost and the potential link between healing programs and improvement in these statistics.

Michelle Coats

## **Affect 1: Substance Abuse & Mental Health Disorders**

### Trauma linked to Substance abuse & Mental Health Disorders

These two trauma related affects have been grouped due to a majority of report findings and research on historical trauma related affects demonstrate that these affects are not mutually exclusive and more often than not substance abuse and mental health issues are presented together with 94% substance abusers having identifiable mental health challenges (Marsh 2016).

Substance abuse has been described as a consequence of historical trauma and oppression in indigenous populations (Finfgeld-Connett 2015). According to Dudgeon & Bray (2018), there is now a broad consensus within Indigenous psychology that Indigenous peoples across the world are impacted by historical trauma causes by intergenerational socio-psychological trauma cause by all too often violent experience of colonisation (Duran & Duran 1995). In 2004, Wesley-Esquimaux & Smolewski introduced a new term for trauma induced mental health stress disorder as Historical trauma transmission (HTT). This identified a mental health disorder that was different from other stress or mental health disorders and that was directly linked to historical trauma associated with colonialization and its inter-generational affects.

### Substance Abuse Statistics

Substance abuse includes alcohol & illicit substances for the purpose of this analysis. Alcohol consumption is about the same for Indigenous and non- Indigenous Australians. However, the percentage of Indigenous Australians who binge drink or are chronic drinkers (17%) is more than twice the number of non- indigenous (8%) (AIHW 2011). 51% of indigenous males has used illegal substances in the past 12 months with 68% of these defined as chronic users. 36% of indigenous females had used illegal substances in the past 12 months with 68% of these defines as chronic users.

### The Cost of Substance Abuse

AIHW (Australian Institute of Health and Welfare) published statistics on Substance abuse amongst Indigenous Australians (2011). AIHW estimates that the total net tangible costs of substance abuse in Australia was 520,500 million for 2011. These costs included health service costs, health related affects, medical services, deaths, crime related, family related and impact on the health care system for Australia. In 2011, there were 23,016 cases of substance abuse reported to the health care and support system to access help (Catto, 2008). Given these statistics, in 2011, each reported event of substance abuse cost an average \$22,614 to the Australian Economy.

## Healing Centre Programs and Reduction in Substance Abuse & Mental Health Disorders

Marsh et al (2016) undertook a literature review of studies of the use of interventions to treat substance abuse in indigenous populations. The interventions were an integration of Western and indigenous culture based services that demonstrated the key factors of healing based initiatives as defined by the Caruana (2010, p.3). The review found that on average, substance abuse was reduced by 74% over all participations in all interventions. A study undertaken by Lowe, Liang, Riggs and Henson (2012) found that culturally based interventions with native American adolescents were significantly more effective at reducing substance use (82%) and related problems compared with non-culturally based interventions (19%). For the purpose of this cost benefit analysis we will use the average impact of a 74% reduction in substance abuse.

## **Affect 2: Domestic & Family Violence**

### Intergenerational Trauma and Domestic and Family Violence

Memcott (2010) undertook a research project that evaluated Australian Indigenous violence and the key underlying risk factors. Traditional and kinship practices, that provided mutual respect and appropriate kin-orientated behaviour, have broken down and led to broken relationships and increased family violence (Memcott 2010). An intergenerational perspective may unveil multi-generational patterns, normal social behaviour's and facilitate consciousness raising about historical oppression all of which created a context in which family dysfunction is more likely. (Burnette 2016). Research carried out with indigenous groups from New Zealand, Canada and Australia have clearly shown a link between historical oppression caused by colonialization and its multigenerational effects. In particular, the risk factors identified for domestic and family violence activity shows intergenerational trauma as the leading cause of family violence particularly the male as perpetrator (Hoffart, 2018).

### Domestic Violence Statistics

The issue of family violence and sexual abuse in Indigenous Communities across Australia has attracted a lot of attention and hence has improved the availability of statistics and research reflecting substantiated and reported violent events within family groups.

The victims of family related violence (physical and sexual assault) were also reported by Cripps. Overall, 19.5% of all indigenous persons reported a case of family related abuse as an adult. This compared to 8.9% of non-indigenous cases. These statistics only captured those reported where there is compelling evidence

that many cases are not reported at all. This is more pronounced in isolated and remote communities where social norms and absence of police or support services compound the low reporting statistics. Statistics compiled by AIHW (2018) indicate that 1 in 4 indigenous women experience violence from a cohabitating partner (ABS 2016).

Cripps (2008) reported cases of substantiated child abuse cases over a period of ten years between 1998 - 2008 showing increasing numbers of cases and disproportionate number of indigenous child abuse (5.5 times more likely than non-indigenous). In 2007, 33% of indigenous children (those under 18) had substantiated cases of child abuse and neglect (Cripps 2008). Children placed in out of home care (fostering) due to family violence can be as high as 88% (Leake 2007). If we assume that of those 33% of children involved in substantiated cases of abuse and neglect, 30% (88% of 33%) are placed in out of home care then we have an additional cost to evaluate (the cost of foster/out of home care services for children).

### Cost of Domestic & Family Violence

KPMG undertook an extensive report on the economic impact of violence against women in Australia. Estimates for 2015-16 shows family violence cost an estimate of \$22 Billion.

The direct cost of the health system, counselling and other related services, the justice system, child and welfare support, as well as indirect costs, such as lost wages, productivity and potential earnings, are just a part of what societies pay for violence against women (Puri 2016).

The Price Waterhouse Cooper identified (in 2014/15 prices) a one off cost of each domestic violence case as being \$26,780 with a 10 year cost of associated repercussions of \$323,406 per event.

**Table 5: Estimated annual per person cost for each woman experiencing violence**

Annual cost per victim (2014-15 real)	All violence
Pain, suffering and premature mortality	10,075
Health	1,312
Production related	1,969
Consumption related*	9,179
Administrative and other	1,879
Second generation*	639
Transfer costs	1,726
<b>Total</b>	<b>26,780.2</b>

*Derived: PWC (2015)*

The above costs represent costs from one family violence event. Estimates of lifetime costs assuming cost of violence (to health, to children, to life choices) is summarised below

**Table 6: Lifetime costs of violence for the 10 year cohort and the victims of 2014-15**

Cost category (\$ million, 2014-15 real)	Lifetime cost for women experiencing violence in 2014-15
Pain, suffering and premature mortality	241,930
Health	18,095
Production related	2,541
Consumption related	48,375
Administrative and other	3,086
Second generation	2,332
Transfer costs	7,048
<b>Total</b>	<b>323,406</b>

*Derived: PWC 2015*

In addition, as a large consequence of family violence, children are removed from home base we must include the cost of providing out of home care as a direct cost of family violence. The Australian Institute of Health and Wellbeing (2010) undertook a detailed analysis of various health related effects of family violence. They evaluated the cost of providing out of home care services and child protection services to be in the vicinity of \$48,000 per year per child in care.

### Healing Centre Programs and reducing Domestic and Family Violence

In Australia there is a lot of recent discussion of the merits of using culturally applicable and owned healing methodologies to address trauma related effects like indigenous domestic and family violence. There is a lot of evidence showing a link between suitable healing methodologies and an improvement in family violence and other socio-economic factors. However, there is very little statistical data that shows a quantifiable link between healing centre programs and reduction in domestic violence in the Australia sector. Canada, however, have a much longer history of evaluating and implementing healing centres based on culturally appropriate methodologies and there is a lot of research reviewing actual outcomes of these programs over 10 years plus. Lucero and Bussey undertook a detailed report on Indian trauma informed practice and child welfare. This article presents analysis of 1000 native families who due to historical child welfare issues (i.e. child removed from home to foster care) undertook a child welfare intervention program based on traditional culture and healing methodologies. The outcome of this research showed a reduction of re-reporting (i.e. families reported for child abuse/neglect on more than one occasion) from 15.5% to nil (Leake 2007). In addition, the families involved in

the child welfare intervention program experience a reduction in children placed in out of home care from 54% to 19% (a 35% reduction).

Price Waterhouse Cooper (2015) undertook an analysis of the effects of healing programs (those which satisfied the key factors as identified in Healing Foundation (2014)). These were mostly international projects and Price Waterhouse Cooper adjusted the affects to account for variations between countries and discounting to account for generalising. They estimated a reduction in violence from implementation of healing based programs to be in the range of 19% applied to the Australian Indigenous context.

If we rely on applicable and statistically relevant data from international comparisons we can apply these estimates to the reduction in domestic and family violence estimated in this analysis. We assume a 19% reduction in domestic violence due to the implementation of a healing centre program and a 35% reduction in children placed out in care due to family violence.

### **Affect 3: Suicide**

#### Trauma linked to Suicide

According to Braveheart (1998) manifestations of such cumulative emotional and psychological wounding over generations have included high rates of suicide amongst indigenous populations.

#### Suicide Statistics

The Australian Bureau of Statistics publishes suicide statistics by demographic. In 2015, the total number of suicides per 100,000 people within Australia was 34 (ABS 2015). Of these, 23 were Indigenous. This represents a suicide rate of .023% of indigenous population.

#### The cost of Suicide

Estimating the cost of suicide is a challenging task. Estimates have been made that include costs such as years of lost life, years of productive life and direct cost of event. The details of the economic cost of a single suicide taken from Kinchin & Doran (2018) is \$9,721 for direct costs, \$2,156m indirect cost and \$0.86m intangible costs.

#### Healing Programs and Suicide Reduction

Attempting to understand how appropriately designed healing strategies can have a positive impact on the number of suicides is extremely complex as suicide in an

event that is the final result of a number of factors and it is difficult to measure if a program can stop a suicide event from occurring if we are not sure that a suicide event will occur in the first place. Given these challenges there are studies that have evaluated the key behaviours that potentially lead to suicide and have analysed to what extent these behaviours are present that might lead to a suicide event. Clifford, Doran and Tsey (2013) analysed identifiable key behaviours leading to suicide and evaluated intervention programs against a change in these key behaviours. The interventions (or programs) that were culturally tailored and adhered to traditional and cultural practice demonstrated a statistically significant change in identified behaviours amongst client groups. All three culturally applicable interventions lead to an average of 40% improvement in key behaviours compared with seven mainstream interventions which did not show any statistically significant change in behaviour. For the purpose of this cost benefit analysis it is proposed that a healing centre program could have a positive effect on suicide related behaviours and potentially reduce suicide events by 40%.

#### **Affect 4: Criminal Behaviour, associated Incarceration and Recidivism**

The Bringing them Home Report (EOC 1997) identifies several factors as key determinants of incarceration. In summary, low levels of education, health issues and poor standards of housing are consistent factors for a majority of incarcerated offenders. The direct experience of substance abuse, family violence and intergenerational trauma affected over 67% of all indigenous inmates directly with up to 80% both directly and/or indirectly effected by these experiences (INAC 2009). In particular, the indigenous offenders presented with a mix of all major factors and experiences that can be all linked to ongoing, intergenerational trauma relating to dispossession, abuse and racial exclusion (Holland et al).

##### Indigenous incarceration Statistics

Indigenous men are over 11 times more likely to be incarcerated than non-indigenous men and Indigenous women are 12 times more likely to be incarcerated than non-indigenous women (ABS 2017). Statistics published for 2017 show that for every 100,000 indigenous men, 4136 of these will be incarcerated at any given time. This indicates that 4.14% of all adult indigenous men are in prison at any given time. Incarcerated indigenous women are at 0.45% of all adult indigenous women and juveniles with youth detention (between 10 and 18 years of age) are 372 per 100,000 or 0.038% of all indigenous juveniles (AIHW 2017).

### Understanding Incarceration Costs

Price Water Cooper's (PWC) Indigenous Consulting Group (May 2017) put together an extensive analysis of the cost of indigenous incarceration in Australia and these costings will be predominately referred to in identifying the cost of incarceration for Australia Indigenous Males, Females & Juveniles.

PWC identified cost of an incarceration event as follows:

Category	Cost Component	Description	Estimate (\$,2016)
Fiscal: Justice	Police	The average cost of police work per offence	20,815 per event
	Court	Costs of court system and processing	9,128 per event
	Prison	Cost per year of adult incarceration	113,880 per annum
	Alternate Child Support Cost	Cost of foster/child care per female inmate	39,617 per annum
	Juvenile Detention & Supervision	Per Juvenile detainee per annum	566,480 per annum
Economic Cost:	Cost of Crime	The average cost to <i>Community</i> per crime i.e. damage, theft	10,666 per event
	Loss of Productive Income	The loss of contribution by individual to economy due to incarceration	27,746 (male) 13,385 (female p.a.)

### Impact of Healing Centre Program on Incarceration costs.

There is very little evaluation of the effects of a healing centre program (as defined by the healing foundation) on incarceration rates. There does not seem to be any evaluation of Australian Indigenous healing program outcomes other than anecdotal records. However, if we assume that the core characteristics of Healing Centres are also evidenced in international healing practices and programs we do have some evidence that links reduced incarceration rates to programs that demonstrate the core characteristics identified in Caruana (2010, p. 3). PWC (2017) assess 57 initiatives aimed at reducing recidivism. Only 5 of these initiatives were able to demonstrate statistically significant outcomes for adults and 2 of these initiatives demonstrated statistically significant outcomes for juveniles.

These 7 initiatives are summarised below:

Initiative	Description	Target	Study Scope	Outcomes
Influencing Students Dispositions (Sammons et al 2014)	Specified early childhood education: targeted case management	3 year old children on 3 year program	Retrospective analysis of up to age 16 years	7 times less likely to enter juvenile correctional system
*Perry Preschool Project (Heckman 2007)	Intensive early childhood intervention	2 year old intensive targeted intervention	Matching control case aged 2 to 40 years old	At age 40: 36% less incarceration than on attenders
*Court Integrated Service Program (Ross, 2009)	Aimed at re-offenders	Re-offenders: 200 adults over 2.5 years	2.5 years monitoring of outcomes	14% reduction in re-offenders compared with not attenders
Multi-Systemic therapy (Schaeffer, 2005)	Focus on aggressive and antisocial behaviour	Clinical trial with 176 serious offenders	14 year study	31% reduction in recidivism 57% less days incarcerated
*Aboriginal Justice Strategy (Dept Justice 2017)	<i>Community</i> Based diversion program	3361 participants	8 year study with control group	50% reduction in recidivism rates
*Youth Justice Conferencing (Luke, 2002)	Holistic approach to addressing antisocial /criminal behaviour in youth	4000+ participants over 40 months	40 months	20% reduction in recidivism
*Corrections Services Employment Pilot (Graffam 2004)	Job ready and life skills for paroled offenders	600 clients over 2 years	12 month follow up	27% reduction in number of offences within <i>Community</i>

Of the initiatives identified as being statistically significant only those (identified with an \*) could be categorised as displaying the core characteristics of indigenous controlled, *Community* managed healing programs. If we analyse results from these identified programs we potentially are looking at a reduction of incarceration of between 14% to 50% (average: 29.4%)

## Section 5: Calculating Benefits and Costs

In section 4 the statistics, costs and analysis of our generic *Community* were presented to assist in understanding the logical connector between the effects of trauma, the costs of trauma and the potential cost savings through implementation of an appropriately implemented healing centre program.

### A: Cost of Healing Centre Program for our *Community*

In summary, a Healing Centre setup costs are \$68,500 with ongoing yearly costs of \$581,500.

### B: Cost of Trauma to our *Community*

With all of this information presented we can measure the cost of trauma (for those affects measured) to our *Community* in any one year. The measured affect, the statistics, and associated costs are tabled below calculated against our generic *Community* of 200 adults, 50 juveniles and 150 children.

#### What are current cost of trauma related behaviour in our *Community*

Substance Abuse & Mental Health Disorders						
Cost Component	Cost Differential	Cost (Yr Calculated)	Cost Indexed to 2018 <sup>3</sup>	Statistics (% pop)	No. Per <i>Community</i> <sup>1</sup>	Cost p.a. to our <i>Community</i> <sup>2</sup>
Alcohol Substance Abuse	Males	22614(2011)	25324	17%	17	\$ 430,508
	Females	22614(2011)	25324	17%	17	\$ 430,508
Illegal Substance Abuse	Males	22614(2011)	25324	35%	35	\$ 878,236
	Females	22614(2011)	25324	24%	24	\$ 619,932
<b>Total Cost of Substance Abuse per year for our <i>Community</i></b>						<b>\$ 2,359,184</b>

Domestic & Family Violence						
Cost Component	Cost Differential	Cost (Yr Calculated)	Cost Indexed to 2018 <sup>3</sup>	Statistics (% pop)	No. Per <i>Community</i> <sup>1</sup>	Cost p.a. to our <i>Community</i> <sup>2</sup>
Family Violence Event	Adults	26780 (2015)	27650	25%	50	\$ 1,382,500
Children Placed in care due to violence	Children	48000 (2010)	55529	30%	45	\$ 2,498,805
<b>Total Cost of Domestic &amp; Family Violence for our <i>Community</i></b>						<b>\$ 3,881,305</b>

<b>Suicide</b>						
<b>Cost Component</b>	<b>Cost Differential</b>	<b>Cost (Yr Calculated)</b>	<b>Cost Indexed to 2018<sup>3</sup></b>	<b>Statistics (% pop)</b>	<b>No. Per Community<sup>1</sup></b>	<b>Cost p.a. to our Community<sup>2</sup></b>
Direct Cost per Event	Adult & Juvenile	9721 (2018)	9721	0.02%	0.0575	\$ 559
Indirect Cost of life lost	Adult & Juvenile	2156000 (2018)	2156000	0.02%	0.0575	\$ 123,970
<i>Community &amp; Economic Cost</i>	Adult & Juvenile	860000 (2018)	860000	0.02%	0.0575	\$ 49,450
<b>Total Cost of Suicide for our Community</b>						<b>\$ 173,979</b>

<b>Crime, Incarceration &amp; Recidivism</b>						
<b>Cost Component</b>	<b>Cost Differential</b>	<b>Cost (Yr Calculated)</b>	<b>Cost Indexed to 2018<sup>3</sup></b>	<b>Statistics (% pop)</b>	<b>No. Per Community<sup>1</sup></b>	<b>Cost p.a. to our Community<sup>2</sup></b>
Fiscal Justice	Males	143823 (2016)	146625	4.14%	4.14	\$ 607,028
	Females	183,440 (2016)	187014	0.45%	0.45	\$ 84,156
	Juveniles	566,480 (2016)	577518	0.04%	0.019	\$ 10,973
Cost of Crime	Males	10666 (2016)	10874	4.14%	4.14	\$ 45,018
	Females	10666 (2016)	10874	0.45%	0.45	\$ 4,893
	Juveniles	10666 (2016)	10874	0.04%	0.019	\$ 207
Loss of Productive Income	Males	27746 (2016)	28286	4.14%	4.14	\$ 117,104
	Females	13385 (2016)	13645	0.45%	0.45	\$ 6,140
<b>Total Cost of Crime, Incarceration and recidivism per year for our Community</b>						<b>\$ 752,275</b>

1. Our generic Community of 100 Men, 100 Women, 50 Juveniles & 150 Children
2. Number of events or offenders per our generic Community by cost per event/offence
3. Reserve Bank of Australia inflation calendar

**The cost of trauma** (for those affects that are measurable) for our *Community* using average costs and average *Community* statistics are:

Substance Abuse & Mental Health Disorders	\$2,359,184
Domestic & Family Violence	\$3,881,305
Suicide	\$ 173,979
Crime, Incarceration & Recidivism	\$ 752,275
<b>Total Cost of Trauma</b>	<b>\$7,166,743</b>

The cost of trauma that can be directly attributed to intergenerational, indigenous specific trauma is on average costing \$17,916 per man, woman and child (in our generic *Community*) every year.

### Potential Savings of Trauma Related Effects

There is strong evidence both nationally and internationally that an appropriately designed healing centre program can have significant effect on the trauma related affect and the research undertaking to examine these affects are set out in section 4.

A summary of estimated cost savings due to reduction in the number/events of trauma related affects is shown below. The research evaluating the positive effects of healing centre activity summarises affect over time. This cost benefit analysis is looking at the cost and benefits over a 5 year period and the estimated cost savings will need to be evaluated over a 5 year period and discounted to correctly evaluate the net social benefit (or cost) of healing centre programs.

Costs of Trauma Affects	Component	Cost of Trauma p.a.	Reduction Estimates over time	Cost Savings pa
Substance Abuse & Mental Health Disorders	Substance Abuse (chronic event)	\$2,359,184	74% over 3 years	\$581,932
Domestic & Family Violence	Family Violence Event	\$1,382,500	19% over 1 year	\$262,675
Domestic & Family Violence	Child placed in out of home care	\$2,498,805	35% over 2 years	\$437,291
Suicide	Suicide Behaviours	\$173,979	74% over 3 years	\$42,915
Crime, Incarceration & Recidivism	Incarceration Events	\$752,275	29.4% over 2 years	\$110,584
<b>Total Cost of Trauma</b>		<b>\$7,166,743</b>		<b>\$1,435,397</b>

In the absence of having detailed estimates for each year (we have various percentage reductions over different periods) we have to assume that the reduction is spread out evenly over the years. It must also be assumed that as long as the Healing Centre Program is in operation (5 years) then the estimated reduction in trauma related affects will continue.

The table below shows the costs and benefits over a 5 year period with estimates in cost savings spread evenly over the 5 year period. Amounts are shown at net present value using a 4% discount rate

<b>Cost &amp; Benefits over Time (Discounted 4%)</b>	Year 0	End Year 1	End Year 2	End Year 3	End Year 4	End Year 5	Net Present Value Cost/Benefit
<b>Operational Costs</b>							
<b>Healing Centre</b>	-68500	-558736	-536863	-515847	-495653	-476250	-2651849
<b>Reduction in Trauma Affects</b>							
Substance Abuse & Mental Health Disorders	0	559151	537262	516230	496021	476604	2585268
Domestic & Family Violence (Adult)	0	252392	242511	233018	223896	215131	1166948
Domestic & Family Violence (Child)	0	420172	403724	387919	372733	358142	1942690
Suicide	0	41235	39620	38069	36579	35147	190650
Crime, Incarceration & Recidivism	0	106255	102095	98098	94258	90568	491274
<b>Total Net Present Value of Benefits</b>	<b>(68500)</b>	<b>820469</b>	<b>788349</b>	<b>757487</b>	<b>727834</b>	<b>699342</b>	<b>\$ 3,724,981</b>

*Net Present Values using range of discount rates*

Present Value of Net Benefits (2% Discount Rate)	-\$ 68,500	\$ 837,003	\$820,443	\$804,210	\$788,299	\$772,702	\$ 3,954,157
Present Value of Net Benefits (6% Discount Rate)	-\$ 68,500	\$ 804,290	\$757,565	\$713,555	\$672,101	\$633,056	\$ 3,512,067

The net present value (cost) of operating a healing centre is \$2,651,849 over 5 years.

The net present value (Benefit due to reduction in trauma related costs) is \$6,376,830 over 5 years. **The net social benefit of a 5 year healing centre project could potentially reach \$3.7m.** If we use a higher discount rate we are still looking at a potential net social benefit of \$3.5m

## Section 6: Sensitivity Analysis

### Key Assumptions

Due to the nature of this cost benefit analysis and trying to ascertain the cost and benefits relating to social indicators there are some significant assumptions that were made in order to evaluate and measure a program such as the indigenous healing centre program. These assumptions are discussed below with possible impacts if assumptions are incorrect or skewed.

1. There is no detailed Australian Data that evaluate and measure the impact of the Healing Centre methodology over a long period of time and with quantifiable data. Within the Australia context most projects that have attempted to understand the impact of a healing centre program have obtained anecdotal evidence only. The evaluation data used in this cost benefit analysis has mainly been sourced from international program evaluation (particularly Canada) where healing type programs have been running for a much longer period. When using this data certain assumptions have been made:

- That comparative healing centre data outcomes are relevant and applicable to the indigenous Australian context. Interestingly, even if there is doubt about application of non-Australian program outcomes to this context there is sufficient net social benefit demonstrated to allow for large statistical anomalies and still showing a net benefit from healing centre implementation. Even if we reduce our estimated program outcomes by 60% we can still show the benefits of healing centre programs as positive.

- That the programs being compared satisfy the definition of healing centre methodology as defined by the Healing Foundation (Caruana, 2010). There has been no in-depth analysis providing assurance that the evaluated programs support the underlying principles of indigenous ownership, control and cultural design.

2. There is an inherent risk in applying average statistics to one community in order to try and understand the impact of trauma for all indigenous groups. We cannot infer from the outcome of this cost benefit analysis that every group of 200 indigenous adults will demonstrate the behaviour (or trauma related affects) inferred from this analysis. For instance, one small community in the Northern Territory had 12 suicides in 2010 and 9 in 2011 (Williams ,2011) which completely contradicts our average of .0575 people per 200 population. When applying a generic average indicator for our community we have made certain assumptions:

- That it is possible to have a percentage of a person when its actually impossible to have only part of a person behaving or participating in a trauma related event.

- That given statistics from across Australia (i.e. number of events, number of persons) is evenly distributed across all Indigenous communities whereas there are often clusters of some behaviour and no recorded behaviour in others.

- A better application of understanding the impact of trauma would be to take a real community and evaluate trauma related behaviours before a healing centre initiative takes place. For the purpose of this cost benefit analysis, this was impossible.

3. The cost benefit analysis has focused on evaluating trauma related effects and healing centre outcomes where there was enough evidence available to understand the history of trauma, trauma related affects, statistical analysis and comparative healing centre programs to enable a quantifiable net social benefit. This means that many trauma related affects as identified by Williams, Guenther, and Arnott (2011) were not included in this analysis and highly likely to undervalue the calculated net benefit. The absence of data will distort our findings where:

- A trauma related affect was not able to measured and was not included in this analysis. This would lead to undervaluation of the calculated net social benefit

- A trauma related affect was not a target of any healing centre based program so analysis of potential affects from a targeted initiative was not able to be captured in this analysis

- If a healing centre program is shown to reduce the effects of trauma related behaviour then we must assume that there are intergenerational affects. For example, a family who eliminated domestic violence from their family group will also have a profound effect on the outcome for their children and for future generations. There was no attempt to try and quantify these benefits beyond the 5 years of the healing centre program operations.

- Evidence suggests that *Community* based healing projects can have far reaching effects due to extended family groups and cultural connections (Caruana, 2010, p.9). There was no inclusion of this fact into understanding the possible benefits of one community also affecting extended family groups and communities.

- One of the main focuses on Healing Centre Programs is the spiritual and cultural revival of its target group. With the absence of any data on understanding the impact of cultural and spiritual loss on indigenous peoples this have not been included in this analysis - although there is a lot of acceptance that spiritual and cultural revival is a major key in unlocking trauma affects within indigenous groups (Coutre, Parker, Couture and Laboucane, 2001).

4. The net social benefit was calculated using a discount rate of 4%. There is inherent risk in using a discount rate in that we cannot know the true increase in the value of money over time. Comparing the net social benefit result using 2%, 4% & 6% allowed for comparison between discount rates used and provided a bit of an understanding of how discount rates changed the final result. However, all discount rates used gave a positive change in net social benefit ranging from \$3.9m to \$3.7m.

5. Healing Centres are designed to address indigenous intergeneration trauma and as part of program design will address trauma related behaviour including domestic and family violence, criminal behaviour, substance abuse and mental health issues. Many of the program analysis used in this cost benefit report has relied on program methodology designed to address a particular trauma related problem rather than provide a holistic focus on trauma. Using targeted program results to analyse the potential outcomes of a holistically focused program will be skewed in its application. Targeted focused programs might achieve better results (as they are specifically designed to address a particular issue) than a generally focused program such as the Healing Centre methodology. Or, on the other extreme, as many trauma related affects are closely related and linked to intergenerational trauma, a stand-alone program might not be able to address the many other factors and behaviours that contribute to a persons behaviour. If we take this extreme, the results reported through targeted program might significantly underreport results that could be generated through an appropriate holistic focused healing centre program. The only way to truly understand what the potential is for Healing Centre Programs is to capture the before and after effects for a particular indigenous group.

## **Section 7: Summary of Findings**

Using a discount rate of 4% on costs and benefits over a five year period estimates a net social benefit of \$3,724,981. This is just looking at the net social benefit of one generic indigenous community introducing a healing centre program for a five year period. The findings from this cost benefit analysis is overwhelmingly positive however there have been some major assumptions used that if shown to be erroneous or incorrectly applied can have a major impact on the reported outcome. These assumptions are explained in section 6.

Despite reliance on a wide variety of assumptions entirely due to the limitations of resources and the breadth of works referenced there is a clear demonstration that a healing centre - assumed to be underpinned by culture and community - will have a positive impact on community behaviour through addressing intergenerational trauma at its source.

An overwhelming thought throughout this analysis has been that any attempts to address trauma linked behaviour through alternative reactive methods (i.e. mainstream services or reactive treatments) will more than likely have limited impact

as they don't address the source of the problem. The facts showing increasing gaps in socio-economic statistics between Indigenous and non-Indigenous seem to infer that historical and current services and systems are not working for Indigenous Australians.

It is interesting to note that the government of Australia are showing increasing investment in alternative options, like the formation of the ATSI Healing Foundation, and there seems to be increased recognition by institutions that all is 'not well' with Indigenous Australian communities. Since the Healing Foundation first introduced their paper on prospective cost benefit analysis of healing centres (Deloitte) in 2014 there seems to be an increasing amount of research and analysis of indigenous healing methodologies within the Australian context.

It is hoped that this increased interest will be reflected in further investment and implementation of appropriate cultural and community owned healing centre programs and with this, increased understanding of trauma affects and the possibility of genuine healing within the Australian Indigenous community.

## References

- AIHW (2011) *Substance Abuse among Aboriginal and Torres Strait Islander People* (AIHW Cat No. IHW40). Canberra, Australia: AIHW
- AIHW. (2017). *Youth justice in Australia Youth people in detention on an average day by sex and indigenous status, states and territories 2015-16*. (AIHW Bulletin No 130 Cat No Aus 211). Canberra: AIHW.
- AIHW (2018). *Family, domestic and sexual violence in Australia* (Cat. no. FDV 2). Canberra: Australian Institute of Health and Welfare.
- Australian Bureau of Statistics. (2017). Prisoners In Australia (4517.0).* Canberra:ABS. doi:<http://www.abs.gov.au/ausstats/abs@.nsf>
- Australian Institute of Health and Welfare. (2015). *Australian Burden of Disease Study: Fatal burden of disease 2010* (Australian Burden of Disease Study series no. 1 Cat No BOD). Canberra: AIHW.
- Braveheart, M. (1998). The return to the sacred path: healing the historical trauma and historical unresolved grief response among Lakota through a physcho-educational group intervention. *Smith College studies in social work*, 68, 287-305.
- Burnette, CE. 2016. Family Relationships: Minneapolic Vol 65 iss 2. Apr2016 pg 35-368
- Caruana, C. (2010). Healing Services for Indigenous people. *Family Relationships Quarterly*, 17, 3-9.
- Castellano, M.B. (2006). *Final Report of the Aboriginal Healing Foundation: A Healing Journey: Reclaiming Wellness*. Ottawa, Canada: Aboriginal Healing Foundation.
- Catto, M., (2008). Review of illicit drug use among Indigenous people. *Australian Indigenous Health Bulletin*, 8(4), Article 1.
- Clifford, A. Doran, C. & Tsey, K. (2013). A systematic review of suicide prevention interventions targeting indigenous people in Australia, United States, Canada and New Zealand. *BMC Public Health*, Volume 13, p. 463. Retrieved from <http://www.biomedicalcentral.com/1471-2458/13/463>
- Couture, J., Parker, T., Couture, R., & Laboucane, P. (2001). *A Cost-Benefit Analysis of Hollow Water's Community Holistic Circle Healing Process*. Ottawa, Canada: Aboriginal Healing Foundation.

Michelle Coats

Deloitte, (2014). *Prospective Cost Benefit Analysis of Healing Centres*. Canberra, ACT: Aboriginal and Torres Strait Islander Healing Foundation.

Dudgeon, P., & Bray, A. (2018). Indigenous Healing Practices in Australia, *Women & Therapy*, 41(1), 97-113, DOI: 10.1080/027023149.2017.132191

Duran,P., & Duran, B. (1995). *Native American postcolonial psychology*. Albany NY: Suny Press.

Equal Opportunity Commission. (1997). *Bringing them home report: Report of the National inquiry into the Separation of Aboriginal and Torres Strait Islander Children from their Families*. Canberra, Australia: EOC.

Finfgeld-Connett, D. (2015). Qualitative systematic review of intimate partner violence among North Americans. *Issues in mental health nursing*, 36, 754-760  
doi:10.3109/01612840 2015 1047072

Grieves, V. (2009). *Aboriginal Spirituality: Aboriginal Philosophy, The Basis of Aboriginal Social and Emotional Wellbeing*. Darwin, Australia: Cooperative Research Centre for Aboriginal Health.

Hoffart, R. & Jones, N. (2018). Intimate Partner Violence and Intergenerational Trauma among indigenous women. *International Criminal Justice review*, 18(1), 25-44.

Indian and Northern Affairs Canada. (2009). *Evaluation of Community Based healing initiatives supported through the Aboriginal Healing Foundation*. Ottawa, Canada: Audit and Evaluation Sector.

Kinchin, I., Doran, C., (2018). The cost of Youth Suicide in Australia. *International Journal of Environmental Research and Public Health*, 46, 22-27.

KPMG. (2012). *Healing Centres Final Report*. Canberra, Australia: Aboriginal & Torres Strait Islander Healing Foundation.

KPMG (2016). The cost of violence against women and their children in Australia: final report May 2016, *Journal of Interpersonal Violence*, 23(10): 1465–82

KPMG (2017). *The Cost of Family Violence* (DPC 2017). Victoria, Australia: Dept Premier and Cabinet Victoria.

Leake,R., Lucero, N.M., Walkers, J.,& McCrae, J. (2011). *Findings from the NRC4Tribes Technical Assistance needs assessment* (Guidance for the Children's Bureau T/Ta Network). West Hollywood, California: National Resource Centre for Tribal Child Welfare.

- Lowe, J., Liang, H., Riggs, and Henson, M. (2012). *Community Partnership to Affect Substance Abuse among native American adolescents*. Charles Sturt University. doi 10.3109/00952990.2012.694534
- Lucero, N.M., & Bussey, M. (2017). A collaborative and trauma informed practice model for Urban Indian Child Welfare. *Child Welfare Resource*, 91(3).
- Marsh, T, CoteMeek, S., Young,N., Najavits, L., Toulouse, (2016) Indigenous Healing and Seeking Safety: A blended implementation project for intergenerational trauma and substance abuse use disorders. *International Indigenous Policy Journal*. 7(2), 2.
- Memmott, P. (2010). On regional and cultural approaches to Australian Indigenous Violence. *Australian and New Zealand Journal of Criminology*, 42(1), 114-115.
- Price Waterhouse Coopers. (2015). *The Economic Case for Preventing Violence against Women* (Nov 2015). Canberra, Australia :PWC.
- Puri L (2016). The economic costs of violence against women. Remarks by UN Assistant Secretary-General and Deputy Executive Director of UN Women, Lakshmi Puri, at the high level discussion on the 'Economic cost of violence against women' on 21 September 2016, United National Womens Journal, 2017(1) New York: UN Women
- Ryan, N., Head, B., Keast, R. & Brown, K. (2006). Engaging Indigenous Communities: Towards a Policy Framework for Indigenous Community Justice Programmes. *Social policy and Administration*, 40, 304-321.
- Waldron, J. (2008). *Aboriginal Healing in Canada: Studies in Therapeutic Meaning and Practice*. Ottawa, Canada: Aboriginal Healing Foundation.
- Williams, E., Guenther, J., & Arnott, A. (2011). *Traditional Healing; A literature review Coevaluator Network* (Working Paper Series 2). Darwin, Australia: Charles Darwin University.