

Literature review of the interplay between education, employment, health and wellbeing for Aboriginal and Torres Strait Islander people in remote areas

Working towards an Aboriginal and Torres Strait Islander wellbeing framework

Oanh K. Nguyen
Sheree Cairney

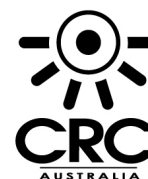
Working paper

CW013

2013



An Australian Government Initiative



Cooperative Research Centre for Remote Economic Participation Working Paper CW013

ISBN: 978-1-74158-225-3

Citation

Nguyen OK and Cairney S. 2013. *Literature review of the interplay between education, employment, health and wellbeing for Aboriginal and Torres Strait Islander people in remote areas: working towards an Aboriginal and Torres Strait Islander wellbeing framework*. CRC-REP Working Paper CW013. Ninti One Limited, Alice Springs.

Acknowledgement

The Cooperative Research Centre for Remote Economic Participation receives funding through the Australian Government Cooperative Research Centres Program. The views expressed herein do not necessarily represent the views of CRC-REP or its Participants.

Acknowledgements

For additional information please contact

Ninti One Limited
Communications Manager
PO Box 154, Kent Town
SA 5071
Australia

Telephone +61 8 8959 6000 Fax +61 8 8959 6048

www.nintione.com.au

© Ninti One Limited 2013

Literature review of the interplay between education, employment, health and wellbeing for Aboriginal and Torres Strait Islander people in remote areas

Working towards an Aboriginal and Torres Strait Islander wellbeing framework

Oanh K. Nguyen

Sheree Cairney



An Australian Government Initiative



Contents

Executive summary.....	iii
1. Introduction.....	1
1.1 The Interplay project.....	1
1.2 The review	1
2. Health and wellbeing frameworks	3
2.1 Framing health: global perspectives	3
2.1.1 The social determinants of health.....	3
2.2 Aboriginal and Torres Strait Islander health.....	3
2.2.1 Remote Australia.....	4
2.3 Framing health: Aboriginal and Torres Strait Islander health and wellbeing	5
2.4 Australian Government frameworks	6
2.4.1 Aboriginal and Torres Strait Islander Health Performance Framework.....	6
2.4.2 Overcoming Indigenous Disadvantage.....	7
2.4.3 The Australian Bureau of Statistics (ABS) Aboriginal and Torres Strait Islander Wellbeing Framework.....	7
2.4.4 National Aboriginal Torres Strait Islander Social Survey (NATSISS)	7
2.5 Other Aboriginal and Torres Strait Islander wellbeing frameworks.....	8
3. Indicators within a wellbeing framework: physical, social, emotional, cultural and spiritual factors	9
3.1 Physical.....	9
3.1.1 Health	9
3.1.2 Land and connection to country	9
3.2 Social	11
3.2.1 History/Colonisation.....	12
3.2.2 Social exclusion, discrimination and racism	12
3.2.3 Control and empowerment	12
3.2.4 Incarceration	13
3.2.5 Access to food and nutrition.....	13
3.2.6 Access to health services	14
3.2.7 Education.....	14
3.2.8 Economic participation.....	16
3.3 Emotional.....	18
3.3.1 Mental health/social and emotional wellbeing (SEWB).....	18
3.3.2 Substance use and suicide.....	19
3.4 Cultural and spiritual.....	20
3.4.1 Culture, self-identity and social support.....	20
3.5 Towards a wellbeing framework	21
4. A wellbeing framework for Aboriginal and Torres Strait Islander people in remote Australia.....	22
5. Conclusion	28
References.....	29

Shortened forms

ABS	Australia Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ALM	Aboriginal Land Management
CDEP	Community Development Employment Projects program
CIVP	Community Indicators Victoria Project
COAG	Council of Australian Governments
CSDH	Commission on the Social Determinants of Health
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
HPF	Aboriginal and Torres Strait Islander Health Performance Framework
OID	Overcoming Indigenous Disadvantage
NAHS	National Aboriginal Health Strategy
NATSISS	National Aboriginal Torres Strait Islander Social Survey
NSFATSIH	National Strategic Framework for Aboriginal and Torres Strait Islander Health
NT	Northern Territory
SEWB	Social and Emotional Wellbeing
SEWBF	Social and Emotional Wellbeing Framework
WAACHS	Western Australian Aboriginal Child Health Survey
WHO	World Health Organization

Executive summary

The availability of timely, comprehensive and good quality data specifically relevant to remote Aboriginal and Torres Strait Islander notions of health and wellbeing has been a significant obstacle to understanding and addressing related disadvantage in a meaningful way. This literature review for the CRC-REP *Interplay Between Health, Wellbeing, Education and Employment* project explored existing wellbeing frameworks at global and local levels that are relevant to Aboriginal and Torres Strait Islander people in remote Australia.

Current government frameworks that collect data about Aboriginal and Torres Strait Islander people often produce a narrative that describes deficit, disadvantage and dysfunction. The frameworks include the Aboriginal and Torres Strait Islander Health Performance Framework, the Overcoming Indigenous Disadvantage Framework, the Australia Bureau of Statistics Aboriginal and Torres Strait Islander Wellbeing Framework and the National Aboriginal and Torres Strait Islander Social Survey. These frameworks gather statistical information for the purposes of policy analysis and program development and therefore use indicators that are important to policy. Increasingly, government frameworks are including holistic measures of health such as cultural health, governance and the impacts of colonisation.

This literature review has identified the need to develop a wellbeing framework that not only accurately represents education, employment, health and wellbeing and the interplay between these and other factors, but that also recognises the strengths and resilience of Aboriginal and Torres Strait people as well as reflecting their worldviews, perspectives and values. For example, a definition of ‘wellbeing’ that highlights the importance of *physical, social, emotional, cultural and spiritual* influences at the level of the individual and the community has been endorsed by Aboriginal and Torres Strait Islander groups and governments alike and sustained for over 20 years. Accordingly, this literature review has been organised along these topics.

In addition, the literature suggests that optimal wellbeing occurs when there is strong cultural identity in combination with control, achievement and inclusion at a wider societal level, such as through successful engagement in education and employment. Listening to Aboriginal and Torres Strait Islander people to learn of their conceptual thinking, knowledge and understanding, and responding to their priorities and ideas are crucial parts of the policy equation to improve outcomes across education, employment, health and wellbeing. The challenges in developing an appropriate wellbeing framework, then, are ensuring the active involvement and participation of the Aboriginal and Torres Strait Islander people.

One example of how this has worked is provided by the Community Indicators Victoria Project, which used local-level data to address issues that the local community identified as important. A focus on strengths is also important, and is exemplified in the Social and Emotional Wellbeing Framework of the National Aboriginal and Torres Strait Islander Health Council and National Mental Health Working Group. Various existing programs – such as ‘Caring for Country’ – can be adapted to capture data about connection to country, for example, and how that impacts on physical and mental health. Critically, the core domains of education, employment and health need to be extended to include activities and concepts that Aboriginal and Torres Strait Islander people consider important to these areas.

Recommendations for the development of a wellbeing framework are proposed here, derived from information available in the literature. Rather than being definitive, these recommendations provide a starting point for consultation and adaption towards establishing a wellbeing framework and operational system for collecting and analysing long-term health and wellbeing data for Aboriginal and Torres Strait Islander people in remote Australia as part of the research conducted by CRC-REP.

Recommendations for a wellbeing framework for Aboriginal and Torres Strait Islander people in remote Australia

Based on this review of the academic literature and global and national initiatives, the following recommendations are made towards the development of a wellbeing framework for Aboriginal and Torres Strait Islander people in remote Australia.

Recommendation 1 – Aboriginal and Torres Strait Islander people are involved in the research and their perspectives represented

Recommendation 2 – A strength-based model is used rather than focusing on deficits

Recommendation 3 – Focus on interrelationships between health and wellbeing, education and employment, and their contexts for Aboriginal and Torres Strait Islander people in remote Australia

Recommendation 4 – The following core themes are represented across the framework

- Theme 1 – Kinship, culture, land and spirituality
- Theme 2 – Control or empowerment
- Theme 3 – Healthy, safe and inclusive communities
- Theme 4 – Resilience

Recommendation 5 – The framework has broad definitions of its core domains:

- *Domain 1* – Education is considered as learning that is inclusive of mainstream education and training, but also extending to include all activities of learning related to work and health such as learning Aboriginal and Torres Strait Islander knowledge.
- *Domain 2* – Employment is considered as livelihood that is inclusive of mainstream employment with income as an indicator, but extends to include other livelihood activities, including voluntary or traditional roles.
- *Domain 3* – Health is considered as biomedical health as well as social and emotional wellbeing, culturally relevant notions of health and, particularly, resilience.

1. Introduction

1.1 The Interplay project

The objective of the Cooperative Research Centre for Remote Economic Participation (CRC-REP) is to deliver solutions to the economic challenges in remote locations and to contribute to the Australian Government's Closing the Gap agenda of reducing socio-economic inequality between Aboriginal and Torres Strait Islander and other Australians, while also accommodating unique cultural and social practices that are important to the people living in Aboriginal and Torres Strait Islander settlements. As part of this work, the CRC-REP is undertaking a longitudinal research project investigating the interplay between health, wellbeing, education and employment in remote Aboriginal and Torres Strait Islander settlements. This framework will be used to evaluate the impact of interventions and inform policy in these areas.

The key research questions of the Interplay project are:

1. What are the relationships between health and wellbeing outcomes and education and employment for individuals and communities living in remote Australia?
2. How effective are targeted interventions in this field?
3. How can policy and practice be better informed by this knowledge to maximise desired health and wellbeing outcomes?

There are three main stages to the project: the first (two years) will develop and pilot protocols; the second (two years) will involve data collection; and the final (18 months) will translate study findings and seek funding for longitudinal monitoring of participants. In the long term, this research aims to improve the quality of life for Aboriginal and Torres Strait Islander people living remotely. This will be through coordinated transformative change driven by policy and community action, using the rich knowledge derived through the research as a base.

1.2 The review

An estimated 300–500 million Indigenous peoples live worldwide, forming 5000 distinct groups (Anderson & Whyte 2008, Gracey & King 2009, Stephens et al. 2006). Despite the great diversity of Indigenous peoples, many similarities exist across health, illnesses and their determinants. Indigenous peoples are over-represented among the poor and disadvantaged and, compared with the wider population, generally experience lower life expectancies; higher incidences of chronic diseases such as diabetes, heart disease and cancers; higher incidence of mental health disorders and damaging substance misuse; and a relatively higher incidence of infectious diseases (Anderson & Whyte 2008, Burgess et al. 2005, Freemantle et al. 2007). Overall, the health of Indigenous populations worldwide compares unfavourably with their non-Indigenous, counterparts warranting the increasing international attention given to the health and social circumstances of Indigenous peoples over the last couple of decades (Anderson & Whyte 2008, Gracey & King 2009). This attention is particularly pertinent for Australia's Aboriginal and Torres Strait Islander people, who not only generally have worse health than other Australians, they also have worse health than comparable Indigenous populations in the United States, New Zealand and Canada (Booth & Carroll 2008, Hunter 2007).

Most countries do not officially recognise their Indigenous groups, and have inaccurate or no published statistical health data for these peoples (Gracey & King 2009). However, Native Americans, First Nations people of Canada, and Māori in New Zealand are Indigenous groups who are easily identified, as are Australia's Aboriginal and Torres Strait Islander people. Even within these Indigenous populations for which health data are collected, the data quality may be variable. Also, the data tend to be framed by biomedically defined measures of health and illness (Anderson & Whyte 2008, Gracey & King 2009), focusing on non-Indigenous, rather than Indigenous, notions of health (King et al. 2009). Indigenous peoples define health and wellbeing far more broadly than merely physical health or the absence of disease (Ganesharajah 2009), and the availability of timely, comprehensive, good quality data specifically relevant to remote Aboriginal and Torres Strait Islander notions of health and wellbeing has been a significant obstacle to understanding and addressing related disadvantage in a meaningful way.

In Australia, data collected on diseases – such as cancer, for example – continue to be inadequately collected to include Aboriginal or Torres Strait Islander status; as a result, the burden of many diseases among Aboriginal and Torres Strait Islander people continues to be underestimated (Garvey et al. 2011). The concept of 'social and emotional wellbeing' (SEWB) is increasingly used when referring to Aboriginal and Torres Strait Islander health (Gooda 2010, Jordan et al. 2010). It has been noted for some time that the body of Aboriginal and Torres Strait Islander research and ongoing government interventions in Australia, which have focused on Western ways of knowing and do not reflect the needs of Aboriginal and Torres Strait Islander communities, have failed to positively impact on the wellbeing of Aboriginal and Torres Strait Islander people (Kendall et al. 2011).

In light of the emerging global recognition of the inadequacies of conventional socio-economic and demographic data to reflect the relative wellbeing of Indigenous peoples (Prout 2011), this literature review explores existing wellbeing frameworks at global and local levels that are relevant to Aboriginal and Torres Strait Islander people in remote Australia. It identifies relevant indicators within an Aboriginal and Torres Strait Islander wellbeing framework – particularly those relating to education, employment and health – and reviews and presents evidence of interrelationships between these variables within a remote context.

2. Health and wellbeing frameworks

2.1 Framing health: global perspectives

Health disparities are widely prevalent within and between countries (Johnson et al. 2008). While society has traditionally looked to the health sector regarding health and disease, there is increasingly widespread recognition that ‘health’ is more than the absence of disease, and that a holistic approach should guide efforts to improve health (Devitt et al. 2001, Marmot et al. 2008, World Health Organization 2011). It is also accepted that much of the global burden of disease and the major causes of health inequities arise from the *social determinants of health*.

2.1.1 The social determinants of health

Although individuals do make choices about health behaviours, psychological and physiological health outcomes are influenced by structures that are beyond personal choice (Carson et al. 2007). The recognition of the social determinants of health has been largely influenced by Wilkinson and Marmot’s publication *Social Determinants of Health: The Solid Facts* (2003). The Commission on the Social Determinants of Health (CSDH)¹ has defined the social determinants of health as ‘the conditions in which people are born, grow, live, work and age, including the health system’ (World Health Organization 2011).

Wilkinson and Marmot identify ten key determinants of health that apply to people worldwide. The first is ‘the social gradient’, which highlights that poor social and economic circumstances affect health throughout life; those in lower socio-economic positions experience the worst health, including high levels of illness and premature mortality. This is true in even the most affluent countries. The other key determinants are stress, early life, social exclusion, work, unemployment, social support, addiction, food, and transport (Wilkinson & Marmot 2003). The CSDH asserts: ‘Change the social determinants of health and there will be dramatic improvements in health equity’ (World Health Organization 2011).

2.2 Aboriginal and Torres Strait Islander health

In 2006, the Aboriginal and Torres Strait Islander population was estimated to be about 517,000, constituting 2.5% of the total Australian population (AIHW 2011a). A significant life expectancy gap of 17 years was reported between the Aboriginal and Torres Strait Islander population and other Australians between 1996 and 2001 (ABS & AIHW 2005). More recently, an alternative method of calculation estimated the ‘gap’ to be 11.5 years for males and 9.7 years for females between 2005 and 2007 (AIHW 2011a). Several studies have explored the contributing factors on this gap in life expectancy and estimated their relative influences, reporting 77% to be attributed to preventable chronic diseases in remote NT communities (Zhao et al. 2008), 17% to tobacco, 16% to high body mass, 12% to physical inactivity, 7% to high blood cholesterol and 4% to alcohol (Vos et al. 2009) and, in a separate analysis that explored the role of socio-economic factors, 25% was attributed to years of schooling (DSI Consulting & Benham 2009). In fact the terminology of the ‘gap’ has also been used to describe reduced performance on indicators of educational outcomes for Aboriginal and Torres Strait Islander people compared with other Australians. In relation to education and employment, Aboriginal and Torres Strait Islander people are less likely to have formal qualifications, and are more likely to have lower income levels and be unemployed

¹ The CSDH was set up by the World Health Organization (WHO) in 2005 to marshal the evidence on what could be done to promote health equity.

(Booth & Carroll 2008). Consequently, it has been argued that ‘we are doing very badly at the level of social determinants’ (Tait 2011). Certainly, government reports indicate that ‘determinants of health – such as contact with the criminal justice system ... and health behaviours – such as tobacco use ... continue to represent significant challenges to achieving health equity for Aboriginal and Torres Strait Islander peoples, families and communities’ (AHMAC 2011). Other health and wellbeing indicators clearly highlight the poor health and disadvantage of Australia’s Aboriginal and Torres Strait Islander people, and these are highlighted in a later section.

Reducing this ‘gap’ in health outcomes has been the focus of ‘Closing the Gap’ policies that have subsequently been criticised for promotion of the deficit and dysfunction label for Aboriginal and Torres Strait Islander people. Focus on the ‘gap’ can prevent acknowledging the influence of colonisation, acculturation stress and the strength and resilience demonstrated in adapting to these conditions (Jordan et al. 2010, Pholi et al. 2009). However, these policies do highlight unacceptable disparities in opportunity and outcomes as outlined by the Aboriginal and Torres Strait Islander Social Justice Commissioner (HREOC 2005). With increasing international focus on these disparities, the Australian Government is under pressure to find strategies that genuinely improve wellbeing for Aboriginal and Torres Strait Islander people. Importantly, the positive implication here is that the poor current health status experienced by Aboriginal and Torres Strait Islander people has, at its foundation, contributing factors that are predominantly preventable if addressed at social and economic levels.

2.2.1 Remote Australia

Approximately one-third (32%) of all Aboriginal and Torres Strait Islander people live in major cities, while 43% live in regional Australia and 25% live in remote areas² (AIHW 2011a). By comparison, only 3% of other Australians live in remote areas (Altman & Gray 2005). In the Northern Territory (NT), four in five Aboriginal people live in either remote or very remote areas (AIHW 2011a).

Some literature indicates that Aboriginal and Torres Strait Islander people living in rural and remote settings experience more disadvantage (Booth & Carroll 2008, Marmot et al. 2008, Tedmanson & Guerin 2011). In 2008–09, for example, Aboriginal and Torres Strait Islander people living in remote areas had higher rates of hospitalisation than those in other parts of Australia (AIHW 2011a). Disorders of mental health and of SEWB are more common in remote settings (Hunter 2007), and participation in education is low (ABS 2011a, AIHW 2011a, Biddle 2010). However, the Western Australian Aboriginal Child Health Survey (WAACHS) yielded significant information on morbidity across different regions, and showed that residence in extremely remote areas appears to be protective against many lifestyle health issues, including substance misuse (Blair et al. 2005). The WAACHS also suggests that other factors, such as living on traditional land, predispose to better health and life expectancy in very remote areas (Scrimgeour 2007). Based on data from two communities in central Australia collected over seven years, a further study reported that people living in small outstation or homeland communities were healthier than those living in larger settlements (McDermott et al. 1998). A 10-year follow up of the same cohort reported reduced morbidity and mortality, particularly on indicators of cardiovascular disease, for those living in decentralised outstations (Rowley et al. 2008). These findings were attributed to localised empowerment, including supported outreach health services, strong connections to land, culture and family and associated benefits of healthy diets, physical activity and limited access to alcohol. It has been argued, therefore, that

² The ABS defines remoteness using the Accessibility/Remoteness Index of Australia (ARIA), based on transformation of physical road distance to the nearest urban centre with a population above 250,000 people (DoHAC 2001).

data reflecting higher mortality rates in rural and remote areas than in urban areas should be treated with caution due to problems with data quality (Scrimgeour 2007). While some commentators insist that Aboriginal people ‘living in remote locations ... should be encouraged to leave in search of better opportunities’ and improved health outcomes, others argue that social and health problems are not confined to remote settlements; in fact, there are many benefits available to Aboriginal people who live on their traditional land (Burgess et al. 2005, Scrimgeour 2007, Zubrick et al. 2010). However, the lack of services and employment prospects in remote areas continue to cause a population drift towards large Aboriginal townships, causing further deterioration of service provision in remote centres (Burgess et al. 2005). These studies show that including factors such as living on traditional lands, empowerment and local concepts of inclusion and isolation may create better wellbeing models than using the mainstream indicators currently employed in national surveys, which may lack the specificity to understand locally relevant pathways to good health.

2.3 Framing health: Aboriginal and Torres Strait Islander health and wellbeing

Social and emotional wellbeing is an integral part of the holistic view of health held by many Aboriginal and Torres Strait Islander people and, generally speaking, the idea of wellbeing is broader and more inclusive than Western conceptions of health (Ganesharajah 2009, Garvey 2008). In Australia, with increasing consideration of these holistic concepts of health and the release of a National Aboriginal Health Strategy (NAHS) in 1989, Indigenous health was defined holistically as ‘the physical, social, emotional, cultural and spiritual wellbeing of the individual and wellbeing of the whole community’ (Jordan et al. 2010, Malin & Maidment 2003). Endorsed by Aboriginal and Torres Strait Islander and government groups alike, this definition has been echoed in similar approaches to understanding Indigenous health overseas and has become a standard definition in Australian academic literature and related health research over the last two decades (Jordan et al. 2010). This definition is consequently used in the current article to frame the reviewed material.

Research has identified that the health of Aboriginal and Torres Strait Islander Australians is clearly impacted by social determinants such as employment and education (Carson et al. 2007, King et al. 2009, Pholi et al. 2009). In addition, the Productivity Commission recently acknowledged the link between poor health and low educational and economic status for remote Australia (SCRGSP 2009), in alignment with globally recognised social determinants of health models. While receiving increasing recognition and policy focus, the role of these factors is not well understood (Siciliano et al. 2006, Walter & Mooney 2007). The lack of and critical need for good data on the link between education and health and wellbeing for Aboriginal and Torres Strait Islander people has been particularly noted (Dockery & Milsom 2007, Dunbar & Scrimgeour 2006). Notable exceptions are the landmark WAACHS (Zubrick et al. 2005a) which measured the health and wellbeing of children from 4 to 17 years old, including emotional and behavioural difficulties. Similarly, the *Longitudinal Study of Indigenous Children* monitored wellbeing and socio-economic factors in 1,650 children and their parents (Biddle 2011). By developing an understanding of the long-term and holistic impacts on Aboriginal and Torres Strait Islander health and wellbeing, these projects have the potential to be transformative for policy and practice in addressing remote area disadvantage and supporting Australian Government objectives on Aboriginal and Torres Strait Islander economic participation (Council of Australian Governments 2008). No comparable longitudinal studies have focused on health and wellbeing outcomes for Aboriginal and Torres Strait Islander adults, and an evidence base to inform policy is lacking.

While the holistic nature of Aboriginal and Torres Strait Islander notions of health has long been recognised, the substantial body of research and government activity in this field have largely been biomedical and focused on specific conditions, their symptomatology and epidemiology. As outlined above, the role of social determinants on health has more recently been recognised. However, Aboriginal and Torres Strait Islander definitions of health, which often extend beyond and sometimes conflict with conventional health reporting frameworks, continue to be marginalised (Freemantle et al. 2007, Pholi et al. 2009, Smylie et al. 2006, Taylor 2008). Often shaped by political agendas, frameworks used to collect information do not account for the dynamics within Aboriginal and Torres Strait Islander societies (such as collective power and control); cultural difference; or of the structural conditions and relationships with mainstream Australia, where Aboriginal and Torres Strait Islanders are a socially excluded minority (Hunter & Jordan 2010, Jordan et al. 2010, Marmot 2005, Pholi et al. 2009, Taylor 2008). In fact, Taylor suggests that appropriate indicators, should they exist, would stand outside and therefore be excluded from more mainstream indicator frameworks (Taylor 2008). As government decisions on health-related funding are based on reporting processes, it is vitally important to develop and monitor appropriate indicators that accurately represent the values and perspectives of Aboriginal and Torres Strait Islander people to achieve real health gains in this population.

2.4 Australian Government frameworks

As Sagers and Gray articulate: ‘When innumerable reports on the poor state of health are released, there are expressions of shock or surprise and outraged cries for immediate action. However, the reports appear to have no real impact and the appalling state of Aboriginal health is soon forgotten and another report is released’ (Sagers & Gray 2007). If information collected is to be used in any meaningful way to improve health and wellbeing, a (reporting) framework needs to be developed that incorporates ‘greater recognition of Indigenous concerns, interests and interpretations of development and wellbeing’ (United Nations Permanent Forum on Indigenous Issues, cited in Taylor 2008). Government reporting frameworks have, over time, attempted to include some of these factors in their collection of data regarding Aboriginal and Torres Strait Islander people. Nonetheless, government frameworks have been criticised for continually failing to accommodate Aboriginal perspectives on wellbeing, and therefore containing inappropriate indicators and data collection methods (Gooda 2010, Hunter & Jordan 2010, Jordan et al. 2010, Taylor 2008, Yu 2011). While the primary role of social determinants on poor health outcomes in disadvantaged populations is established, social interventions delivered to date in Australia that are largely ‘top down’ have yet to improve health for Aboriginal and Torres Strait Islander people. In alignment with the human rights approach that states ‘Indigenous peoples have the right to full and effective participation in decisions which directly or indirectly affect their lives’ (United Nations Permanent Forum on Indigenous Issues 2005a), these reports suggest that social indicators and consequent interventions, developed in conjunction with community groups and that recognise their strengths, would have more impact. Genuine, active and ongoing involvement of Aboriginal and Torres Strait Islander people in the ‘ground up’ development and coordination of frameworks, indicators and reporting processes on issues central to their wellbeing, and stronger linkages between data collection and action are therefore necessary to achieve improved wellbeing in this population.

2.4.1 Aboriginal and Torres Strait Islander Health Performance Framework

The *Aboriginal and Torres Strait Islander Health Performance Framework* (HPF), first published in 2006, was developed to provide the basis for measuring the impact of the *National Strategic Framework for Aboriginal and Torres Strait Islander Health* (NSFATSIH) and inform policy analyses, planning and

program implementation (AHMAC 2011). The HPF consists of 71 indicators covering three tiers: Health Status and Outcomes, Determinants of Health, and Health Systems Performance (AIHW 2011b). Tier 1 contains four domains, including wellbeing and several indicators that encompass *community functioning* (1.14) and *social and emotional wellbeing* (1.16). Determinants of Health (Tier 2) contains five domains: environmental factors, socio-economic factors, community capacity, health behaviours, and person-related factors, with indicators under these domains including *community safety* (2.13) and *Indigenous people with access to their traditional lands* (2.17).

2.4.2 Overcoming Indigenous Disadvantage

The Overcoming Indigenous Disadvantage (OID) framework was designed to report progress towards addressing 'Indigenous disadvantage'. The reporting framework draws heavily on socio-economic indicators from census and survey sources and is 'constructed around a very explicit causal model of Indigenous disadvantage highlighting the domestic settings of child rearing and the interactions between family and schooling' (Taylor 2006). The framework is based around three Priority Outcomes: that 'reflect a vision for how life should be for Indigenous people' (SCRGSP 2011). These are: 1) Safe, healthy and supportive family environments with strong communities and cultural identity; 2) Positive child development and prevention of violence, crime and self-harm; and 3) Improved wealth creation and economic sustainability for individuals, families and communities. The COAG's recent 'Closing the Gap' policy targets – now a key feature of the OID – have been criticised for placing undue emphasis on statistical socio-economic equality at the expense of recognising cultural difference (Jordan et al. 2010).

2.4.3 The Australian Bureau of Statistics (ABS) Aboriginal and Torres Strait Islander Wellbeing Framework

The ABS Wellbeing Framework for Aboriginal and Torres Strait Islander people was developed to map statistical information. Broadly, the ABS identified nine areas to measure wellbeing: culture, heritage and leisure; family, kinship and community; health; education, learning and skills; customary, voluntary and paid work; income and economic resources; housing, infrastructure and services; law and justice; citizenship and governance. The ABS acknowledges that, while this framework is useful for measuring overall wellbeing, it does not take into account the unique cultural and historical factors that affect the individual and community wellbeing of Aboriginal and Torres Strait Islander peoples (ABS 2011b).

2.4.4 National Aboriginal Torres Strait Islander Social Survey (NATSISS)

Conducted in 2002–03 and 2008–09 by the ABS, the NATSISS was designed to assist in policy analysis and program development aimed at providing services to Aboriginal and Torres Strait Islander people. The first survey was of Aboriginal and Torres Strait Islander people aged 15 years and over, and the 2008–09 NATSISS included children aged under 15 years (ABS 2009). The 2008–09 NATSISS provides information on demographic, social, environmental and economic indicators, including personal and household characteristics, geography, language and cultural activities, social networks and support, health and disability, education, employment, financial stress, income, transport, personal safety, and housing. Information from the 2008 NATSISS contributes to existing data and the formulation of government policies and legislation (ABS 2009).

Yu argues that the NATSISS is not relevant for Aboriginal and Torres Strait Islander people as its underlying assumption is that Aboriginal and Torres Strait Islander people achieve wellbeing when they adopt the fundamental tenets of western society (Yu 2011). Similarly, Altman and colleagues argue that, while the NATSISS should allow collection of statistics that capture difference, this 'possibility is circumscribed by ABS acquiescence to the dominant paradigm of Closing the Gap and normalisation'

(Altman et al. 2011). Prout argues that while the NATSISS collect some data regarding wellbeing, the results of those surveys cannot be disaggregated at small geographical scales or for particular Aboriginal and Torres Strait Islander language and/or cultural groups (Prout 2011).

2.5 Other Aboriginal and Torres Strait Islander wellbeing frameworks

The concept of social and emotional wellbeing (SEWB), of which mental health is a component, is preferentially framed in Aboriginal and Torres Strait Islander health as it 'recognises the importance of connection to land, culture, spirituality, ancestry, family and community, and how these can affect the individual (Purdie et al. 2010). Consequently, it is increasingly referenced in research, politicians' public statements and in formal reporting frameworks (Gooda 2010, Jordan et al. 2010). With the NAHS' more holistic definition of Aboriginal and Torres Strait Islander health as a backdrop, a number of authors have further identified some unique components for a wellbeing framework. Prout (2011) outlines key indicators for a wellbeing framework, including physical and mental health, cultural health; family and community; country; education; housing and services; governance/cultural autonomy.

SEWB encompasses mental health but includes things like the impacts of particular traumas – such as colonisation, racism and social exclusion, discrimination, unresolved grief and loss, domestic violence, substance misuse, trauma and abuse, family breakdown, social disadvantage, separation from families, and loss of land and culture – on personal wellbeing (Garvey 2008, Gooda 2010, Henderson et al. 2007, Jordan et al. 2010, Kelly et al. 2009, King et al. 2009, SHRG 2004). Lowitja O'Donoghue has argued for a model of Aboriginal health that considers issues such as structural racism, history and the ongoing impacts of oppression and dispossession (Taylor & Carson 2007). The *Social and Emotional Wellbeing Framework (SEWBF)*, developed by the Social Health Reference Group in 2004, points to the unresolved issues of land, control of resources, and self-determination in contributing to the health and wellbeing of Aboriginal and Torres Strait Islander people. In addition, the SEWBF highlights the need to recognise the strengths, resilience, and cultural and historical diversity of Aboriginal and Torres Strait Islander people and, in doing so, acknowledge the potential for Aboriginal and Torres Strait Islander needs to be addressed by locally developed strategies (SHRG 2004). An Aboriginal author from Kokatha country has emphasised the importance of looking through the lens of Aboriginal cultural values when conducting research and service delivery in an Aboriginal health setting (Reid & Taylor 2011). Reid proposed a model of 'Indigenous Mind' that identifies core values of relationships, respect and reciprocity that must be honoured for any health framework to be effective.

In summary, previous frameworks representing wellbeing for Aboriginal and Torres Strait Islander people have been developed predominantly for government reporting, often for specific policy goals, and with some input from Aboriginal and Torres Strait Islander people. However, limitations of existing frameworks include their inability to reflect Aboriginal and Torres Strait Islander worldviews, perspectives and values; their lack of in-depth and ongoing involvement of this population in data selection, monitoring and interpretation; and their inability to disaggregate data at community levels. Further, Aboriginal and Torres Strait Islander people have voiced their discomfort with statistical representations of health and population (Kowal et al. 2011). Thus developing statistical indicator frameworks to represent wellbeing reflects a worldview that differs from traditional Aboriginal and Torres Strait Islander approaches to wellbeing, posing a major challenge to overcome in developing a shared understanding of wellbeing.

3. Indicators within a wellbeing framework: physical, social, emotional, cultural and spiritual factors

The following section will review the possible indicators of a wellbeing framework based around the widely endorsed definition of Aboriginal and Torres Strait Islander health that is holistic and recognises influence across physical, social, emotional, cultural and spiritual domains at individual and community levels. The characteristics of each of these domains are reviewed in detail below, and significant interrelationships will be explored.

3.1 Physical

Physical health at individual and community levels can relate to the presence or absence of sickness or injury, physical vitality and also to environmental health, including land.

3.1.1 Health

As an internationally endorsed surrogate measure of wellbeing, the health literature has increasingly focused on life expectancy and emphasised the deficit or ‘gap’ experienced by Aboriginal and Torres Strait Islander people among whom it is reportedly reduced by 11.5 years in men and 9.7 years for women, compared with other Australians (AIHW 2011b). Other alarming health statistics broadly reported for this population include death rates up to three times higher than for other Australians (ABS & AIHW 2008, Swan & Raphael 1995, Zubrick et al. 2005a). Aboriginal and Torres Strait Islander babies are twice as likely to be low birth weight with associated risk of poor health, disability and death, and they are more likely to be hospitalised (ABS & AIHW 2008). In 2008 for example, Aboriginal and Torres Strait Islander Australians were hospitalised for cardiovascular diseases at 1.7 times the rate for other Australians; 12% had diabetes compared to 4% for other Australians; and their incidence rate for end-stage renal disease more than doubled between 1991 and 2008, from 31 to 76 per 100,000 population. In 2008, 45% of Aboriginal and Torres Strait Islander people were current daily smokers, double the rate for other Australians. In addition, compared with other young Australians, young Aboriginal and Torres Strait Islander people were 1.8 times more likely to be hospitalised for mental and behavioural disorders, with the leading causes being schizophrenia, alcohol misuse and reactions to severe stress (AIHW 2011a). What is increasingly recognised is that these health outcomes occur as part of a complex interrelated system of historic, social, economic, cultural and environmental factors, and that solutions to these health outcomes must consider the system as a whole.

3.1.2 Land and connection to country

Aboriginal and Torres Strait Islander people maintain a strong belief that continued association with and caring for ancestral lands is a key determinant of health (Burgess et al. 2005). Prior to European arrival, Aboriginal and Torres Strait Islander people maintained their health with a diet derived from a variety of animal and plant sources, high levels of physical activity, and a high level of social cohesion within clear social structures – with little evidence of widespread illness or disease (Educational Determinants of Aboriginal Health Group 2004, O’Dea 2005). As a result of colonisation and dispossession of land, Aboriginal and Torres Strait Islander people went from a situation of complete autonomy in one mode of production to almost absolute dependence on another (Gracey & King 2009). The historical data provide clear evidence that this transition was associated with rising incidences of disease and increased mortality (Boughton 2000). Furthermore, several studies show that good health outcomes are observed where cultural values and connection to land are preserved (Burgess et al. 2009, McDermott et al. 1998, Rowley et al. 2008).

A study conducted by Lowell and colleagues with Yolngu people in Arnhem Land, NT, found that:

The consequences of changes in nutrition, hygiene and exercise which result from a more sedentary lifestyle are compounded by, and interact with, the more subtle but serious effects of a break in connection with one's own groups (clan) as well as a break in connection to one's own land. These disconnections lead to a reduced sense of responsibility for, and control over, the new environment' (Lowell et al. 2003).

This study also found that living in homelands, where education related to Yolngu practices and knowledge is generally stronger, has a positive influence on health. Other research suggests that living in remote areas on, or near, traditional lands appears to improve resilience and mitigate the effects of the negative risk factors on people's wellbeing (Zubrick et al. 2010). Cohesion with kin, ancestors and geography is also shown to be an important factor in the formation of collective esteem and efficacy (Burgess & Morrison 2007).

Land, then, is potentially a basis for reasserting autonomy and control, which can lead to a greater sense of control of health and SEWB (Boughton 2000). Ganesharajah argues, however, that living in a remote context is itself not sufficient to improve health. Rather, there must be a relationship with the place of living and a traditional or cultural lifestyle; there must also be autonomy and choice (Ganesharajah 2009). Thus, rather than looking solely at numbers of Aboriginal and Torres Strait Islander people living on country and their health, there is a need to focus on the *quality* of living on country: whether Aboriginal and Torres Strait Islander people living on or near country are able to choose how they express their connection to country (Ganesharajah 2009). This is further emphasised by Campbell (2000, 2002) who created an 'Indigenous budget' based on traditional values to recognise and understand the cultural value and choices that Aboriginal and Torres Strait Islander people make to stay on country. Contemporary Aboriginal and Torres Strait Islander peoples' attachment to country is expressed in various ways, including living on traditional country; visiting their country; and carrying out land management practices, sometimes in collaboration with government or non-government bodies (Campbell et al. 2008). Thus land, connection to country, preservation of culture and cultural practices, and a sense of control are all strongly linked and highly significant for health for Aboriginal and Torres Strait Islander people.

Caring for country

For Aboriginal and Torres Strait Islander people, involvement in managing country can result in confirmation of identity and cultural authority; social activities; building and maintaining relationships; provision of purpose; traditional education; and sharing knowledge, exercise and food (Campbell et al. 2008, Thompson 2010). A body of work has shown that 'caring for country' programs – defined as those that enable Aboriginal and Torres Strait Islander people to have ownership of how activities are set up, managed and run – contribute to improved health and wellbeing (Burgess et al. 2009; Campbell et al. 2008, 2011). Specifically, Burgess and colleagues (2008a) developed a 'caring for country' index based on six variables assessing traditional engagement with country, otherwise known as traditional or Aboriginal and Torres Strait Islander land management. This index was found to vary inversely with the severity of chronic disease; in a population of approximately 1250 Aboriginal people in northern Australia, caring for country activities were protective for good health and reduced stress, as indicated by hormonal response data (Burgess et al. 2009). These data were further used to predict the potential cost savings in primary health care for diabetes, hypertension and renal disease as a consequence of engaging in caring for country activities, which were estimated at \$268,000 annually or \$4 million over 25 years (Campbell et al. 2011). Campbell and colleagues (2011) make a case that these estimates for northern Australia are likely to be mirrored in central Australia, providing impetus for public funding of these programs. Social and

psychological benefits of participating in caring for country activities include elevated cultural knowledge and status within the community, which can lead to greater capacity to assert control and take responsibility (Campbell et al. 2008). Substantial environmental benefits were also observed in west Arnhem Land in relation to local Aboriginal involvement in resource management programs (Garnett & Sithole 2007, Russell-Smith et al. 2009) and together with the associated economic, social and health gains, these are estimated to replicate in central Australia (Campbell et al. 2008). Thus, Aboriginal and Torres Strait Islander people employed in caring for country programs have been able to fulfil social and cultural obligations, educate young people, escape the stresses of settlements and earn an income, thereby improving community health, economics and environment (Burgess et al. 2005, 2008b; Ganesharajah 2009; Thompson 2010).

Environmental health and climate change

Remote communities are typically isolated from large population centres and consequently have poor access to basic housing, infrastructure and community services (ABS 2008). In 2006, an estimated 4% of remote community residents lived in non-permanent dwellings such as sheds or humpies, and others lived in housing in need of major repairs (24%) or replacement (9%) (ABS 2006a). Overcrowding was experienced in 32% of remote and very remote households, exposing residents to inadequate cooking and sewage conditions, safety issues, higher propagation of infectious diseases and further general health and wellbeing issues (ABS 2008). Among these communities in 2006, 54% relied on bore water and 12% relied on river or reservoir water for their main water supplies; 62% relied on generators for their main source of electricity; 37.7% of sewage was carried through water borne systems, 28.3% via septic tanks and 3.2% via pit toilets (ABS 2006a). For remote Aboriginal and Torres Strait Islander communities, inadequate access to essential services including water, sewerage and power – that are globally chartered human rights (UN General Assembly 1948) – are accompanied by poor access to health, education, communication, accommodation and community services. A study based in 10 Aboriginal communities in northern Australia showed that social and environmental conditions are linked with community development and child health status, and promoted the development of community-controlled programs (Munoz et al. 1992). Further research that monitored socio-economic conditions, crowding, hygiene and common childhood illness in relation to housing infrastructure improvement programs showed that improved housing conditions alone are not sufficient to improve health for children in remote communities (Bailie et al. 2011, 2012). These studies suggest housing infrastructure improvements must be accompanied by social, behavioural and environmental community development programs to improve health and wellbeing.

These built-environment conditions create a unique set of challenges in relation to interacting with and responding to environmental changes. The vulnerability and adaptive capacity of Aboriginal and Torres Strait Islander communities to respond to climate change is largely unexplored and is currently the focus of a national plan (Langton et al. 2012). Due to limited housing, low incomes, land tenure restrictions and limited supply and reliability of services, very few Aboriginal and Torres Strait Islander people living remotely have opportunities to own the houses they live in (ABS 2006b), limiting their ability to modify housing structures or select those that they prefer. Lower socio-economic populations are predicted as the most likely to suffer the health impacts of future climate change (Costello et al. 2009). With a general lack of control and opportunity in relation to widespread social conditions, particularly housing, Aboriginal and Torres Strait Islander people in remote Australia as a group are potentially at risk of further health burden from future climate change.

3.2 Social

3.2.1 History/Colonisation

The legacy of colonisation has led to the reality that Indigenous people internationally ‘remain on the margins of society: they are poorer, less educated, die at a younger age, are much more likely to commit suicide, and are generally in worse health than the rest of the population’ (United Nations Forum on Indigenous Issues 2005b). Colonisation in Australia also resulted in the dispossession of people from their traditional lands and destruction of their practices; exploitation, social exclusion and subsequent poverty; the forced removal of children from families (i.e. the stolen generation); under-education and unemployment; and the introduction of harmful substances such as tobacco and alcohol by colonists, all of which have had long-term effects on the health and wellbeing of Aboriginal and Torres Strait Islander people (Carson et al. 2007, Freemantle et al. 2007, Gooda 2010, Gracey & King 2009, King et al. 2009, Mitchell 2007, Reading & Wien 2009). Bell and colleagues have said that ‘the health of populations has a history, and history itself is a determinant of health, both good and bad’ (Bell et al. 2007). Health and wellbeing, therefore, need to be understood in the context of a history of dispossession (Mitchell 2007).

3.2.2 Social exclusion, discrimination and racism

Although many minority population groups experience racism in Australia, the lived experience of racism is considered most protracted among Aboriginal and Torres Strait Islander people, who have been described as ‘by far the most “outsider” group in Australian society’ (Awofeso 2011). Social exclusion associated with colonisation, oppression and historical and contemporary racism continue to create barriers for this group to participation in education, training and the national economy (Bell et al. 2007, Hunter & Jordan 2010, Paradies et al. 2008, Reading & Wien 2009). Racial discrimination is associated with a range of adverse health conditions, including internal stress and subsequent mental health and chronic physical health problems, and attempted suicide (Malin 2003, Paradies et al. 2008, Zubrick et al. 2010). The WAACHS, conducted in 2000–02, found that experiences of racism can break down self-esteem; promote aggressive behaviours; and lead to depression, anxiety and substance misuse, thereby weakening individual capacities, disrupting social cohesion and alienating groups (Zubrick et al. 2005b). Racial discrimination spanning school and workplace settings can isolate Aboriginal children and young people from both mainstream society and their own culture and community (Zubrick et al. 2006a). This extends to an institutionalised racism experienced by many Aboriginal and Torres Strait Islander people when interacting with institutions such as the workplace, health establishments, law enforcement, and through the media (Mooney 2003), suggesting engrained discrimination with negative impacts on attitudes and opportunities.

3.2.3 Control and empowerment

Racism and social exclusion have therefore created a situation in which there is a diminishing self-esteem and self-confidence among Aboriginal and Torres Strait Islander people in their culture (Awofeso 2011). These factors also impact on the level of control people feel they have over their life circumstances (Reading & Wien 2009). The Ottawa Charter, adopted over two decades ago, states that ‘people cannot achieve their fullest health potential unless they are able to *take control* of those things which determine their health’ [our emphasis] (World Health Organization 1986). In addition, Bell and colleagues identify disconnectedness, low self-esteem and social isolation as factors contributing to poor health, where poor health undermines one’s ability to take control (Bell et al. 2007). These authors also highlight the interrelationships between these factors and educational success. The strong influence of control and empowerment on Aboriginal and Torres Strait Islander people’s health and wellbeing is substantiated in other research (Askill-Williams et al. 2007, Central Australian Aboriginal Congress 2011, Lindeman et al. 2011). The CSDH Report states the importance of creating the conditions that enable people to take control

of their lives (Marmot 2011). In addition, Daniel and colleagues contend that examining ‘mastery’ or control has the potential to contextualise the legacy of colonisation experienced by Aboriginal people in Arnhem Land and to capture feelings of alienation relevant to marginalised peoples:

Alienation in this sense can be understood as a disassociation of people from meaningful work, their social collectives, or their own identities, or being distanced from power and resources that may enable self-determination in political, economic, and social settings (Daniel et al. 2006).

The foundational role of control and empowerment in achieving good health is emphasised in a body of work that combines a family empowerment program with participatory action research in Aboriginal and Torres Strait Islander community groups (Haswell et al. 2010; Tsey 2000; Tsey et al. 2007, 2010; Whiteside et al. 2006). Since 1993, this program has involved rolling out, evaluating and further developing the empowerment program/s towards participant-identified goals in the Northern Territory and Queensland. Reported outcomes are encouraging, with positive impacts felt at personal and wider community levels, including improvements in self-worth, resilience, problem-solving abilities, respect for self and others, capacity to address social issues and enhanced cultural and spiritual identity (Tsey 2000; Tsey et al. 2007, 2010). Noting that empowerment programs are resource intensive but have multiple flow-on effects in terms of their benefits, this research team has developed and validated a Global Empowerment Measure (GEM; Haswell et al. 2010) and called for longer-term investment and monitoring to release the full potential of health benefits from empowerment strategies (Tsey et al. 2007, 2010).

3.2.4 Incarceration

Imprisonment is an indirect (distal) determinant of Aboriginal health in Australia (Awofeso 2011). Aboriginal and Torres Strait Islander people account for more than one-quarter of the Australian prison population (AIHW 2011a) and were 13 times more likely than other Australians to be, or have a family member, sent to jail or already incarcerated (Zubrick et al. 2010). Kreig states that:

A culturally responsive health perspective allows us to hear what Aboriginal people have been telling us for a long time – that patterns of criminal behaviour are often an expression of the deep wells of pain, anger and grief experienced by Aboriginal people on a daily basis as a consequence of their long history of dispossession in this country’ (Kreig 2006).

According to Awofeso (2011) ‘imprisonment creates social exclusion, the consequences of which extend beyond release from prison, and may increase risks of suicide and drug use following release.’

3.2.5 Access to food and nutrition

While there is no doubt that the material aspirations of different cultures vary significantly, Altman (2003) argues that Aboriginal and Torres Strait Islander people’s ‘access to resources is determined by both the price structures and the availability of goods in the wider Australian and global economy’ (Altman 2003). He goes on to suggest that ‘the marginality of Indigenous people can be explained in part by their lack of access to valuable resources’ (Altman 2003). One example that supports this suggestion is the high cost and limited availability of healthy food available to Aboriginal people in remote community stores, which contributes to a diet high in energy-dense, nutrient-poor foods (Brimblecombe & O’Dea 2009). In remote NT communities, an estimated 36% of the family income is needed to purchase food – at least double the proportion required by non-Aboriginal and Torres Strait Islander Australians. With low levels of education and employment, it is no surprise that poor nutrition is a major determinant of excess morbidity and

mortality among Aboriginal and Torres Strait Islander peoples, contributing to over 16% of the burden of disease (Lee et al. 2009). Malnourishment is compounded by inadequate facilities in the home to securely store and keep food cool and uncontaminated (Gracey & King 2009) and inadequate housing infrastructure for the preparation of food (Lee et al. 2009). Other studies of the facilities in remote Aboriginal and Torres Strait Islander communities identify a lack of many services other Australian citizens regard as their right to access (Altman 2003).

3.2.6 Access to health services

Differences in access to health care influence health outcomes (Marmot 2011) and access to high quality health care is very poor for Aboriginal and Torres Strait Islander people (Jenkins et al. 2009). In particular, remote communities are disadvantaged by reduced access to primary health care (PHC) providers and health services (Wakerman et al. 2008). Access is often constrained by financial, geographic and cultural barriers (Stephens et al. 2006). Evidence also indicates that discriminatory treatment and past associations of health care provision with removal of children have led many to delay or not access health services until a crisis occurs (Prout 2011, SHRG 2004). It has therefore been argued that Aboriginal and Torres Strait Islander Australians are discriminated in receiving the 'double burden' of exposure to high risk factors for social determinants of poor health as well as inadequate provision of effective and timely health care services (Awofeso 2011).

3.2.7 Education

International evidence supports the proposition that education can contribute to improving the health of populations, both of the people themselves and of their children (Boughton 2000, World Health Organization 2008). In Australia, education is often posited as a key factor in improving the health and wellbeing of Aboriginal and Torres Strait Islander people (ABS 2011a, AHMAC 2011). The expectation that improved education outcomes will lead to better employment and health outcomes has led both the COAG *National Education Agreement* and *National Indigenous Reform Agreement* to prioritise improving educational attainment for Aboriginal and Torres Strait Islander people, particularly at Year 12 or equivalent (ABS 2011a).

In 2009, attendance rates in Years 5 and 10 in government schools were lower for Aboriginal and Torres Strait Islander students than non-Aboriginal and Torres Strait Islander students for all states and territories (SCRGSP 2011). While educational attainment for Aboriginal and Torres Strait Islander people has increased since the mid-1990s, a large gap remains between outcomes for Aboriginal and Torres Strait Islander people and other Australians, particularly at higher levels of educational attainment. In 2008, 92% of non-Aboriginal and Torres Strait Islander adults (aged 18 years and over) attained at least Year 10 or basic vocational qualifications compared to 71% of Aboriginal and Torres Strait Islander adults; non-Aboriginal and Torres Strait Islander adults were four times more likely to have attained a Bachelor degree or higher compared to Aboriginal and Torres Strait Islander adults (ABS 2011a).

The poor educational experiences and outcomes of Aboriginal and Torres Strait Islander peoples are influenced by a number of factors not shared by other Australians, including the geographical dispersion of the population, minimal use or knowledge of Standard Australian English (which accounts for significant proportions of Aboriginal and Torres Strait Islander children who begin school in remote parts of Australia), and a high degree of chronic health conditions (Zubrick et al. 2006a). Aboriginal and Torres Strait Islander people in remote regions are much less likely to engage in or attain higher levels of education than those in more regional or urban settings (ABS 2011a, Biddle 2010). High rates of disability and illness – such as under-nutrition, hepatitis B, vision and hearing disabilities, and anaemia – are also

shown to affect attendance and ability to learn at school and therefore impact educational outcomes for Aboriginal and Torres Strait Islander students (Askell-Williams et al. 2007, Educational Determinants of Aboriginal Health Group 2004).

While there is substantial evidence to indicate the negative impact of poor health on educational attainment levels of Aboriginal and Torres Strait Islander students, Dunbar and Scrimgeour argue there is less evidence to indicate whether higher levels of educational attainment do in fact lead to better health, or whether better health leads to higher educational attainment (Dunbar & Scrimgeour 2007). Similarly, Boughton (2000) asks, 'if educational disadvantage is associated with ill-health, is this because less educated people become sick more readily, or because regular illness tends to interfere with one's education?' Boughton also suggests that the positive impacts of education on health have not systematically been tested in relation to Aboriginal peoples in Australia or in any other first world country (Boughton 2000). The few Australian statistical studies do not point to a straightforward connection between schooling and Aboriginal and Torres Strait Islander health (Ewald & Boughton 2002, Gray & Boughton 2001). Some researchers also question the value of attempting to establish statistical links between (western) education levels and health outcomes (Ewald & Boughton 2002).

Askell-Williams and colleagues suggest a bidirectional relationship; that is, there is a 'reasonable basis' for expecting that improved education would positively impact wellbeing, which would, in turn, positively impact educational status (Askell-Williams et al. 2007). While some literature suggests that positive educational outcomes are linked with positive self-identity, and negative educational outcomes with negative perceptions of self (Purdie 2003), it is argued that positive health effects of schooling seen in third world populations may be cancelled out for Aboriginal and Torres Strait Islander people because of the socially exclusionary policies and practices that extend to school classrooms (Dunbar & Scrimgeour 2007, Ewald & Boughton 2002, Malin 2003). Education has historically undermined and challenged traditional culture, knowledge and authority and has played a role in the forced removal of children, social exclusion and resultant loss of identity, loss of power and self-determination, and subsequent poor health status of Aboriginal and Torres Strait Islander people (Askell-Williams et al. 2007, Bell et al. 2007, Boughton 2000, Dunbar & Scrimgeour 2007, Educational Determinants of Aboriginal Health Group 2004, May 1999, Zubrick et al. 2006b). Thus resistance by Aboriginal and Torres Strait Islander communities to Western education due to these factors may in part explain poor attendance and commitment to schooling and contribute to the long-standing educational disparity between Aboriginal and Torres Strait Islander and other students (Bell et al. 2007, Dockery 2010, May 1999). Boughton (2000) also suggests that the historical experience of 'education as assimilation' explains why issues of control have been a constant theme for Aboriginal people (Boughton 2000). In this sense, it can be argued that the education-wellbeing transaction operates not only at the individual level of influence; the health and wellbeing of communities also influence educational outcomes (Askell-Williams et al. 2007).

Much examination about the benefits of education focuses on the pathway from education to employment, but does not highlight a pathway from education to health or wellbeing (Askell-Williams et al. 2007, Educational Determinants of Aboriginal Health Group 2004, Ewald & Boughton 2002). Certainly, there is a link between education and employment where lower educational levels restrict employment opportunities (AIHW 2011a); at the same time, fewer jobs in remote locations make it difficult for people to see a value in education (Bell et al. 2007, Lowell et al. 2003). While there has been acknowledgement by Aboriginal and Torres Strait Islander people of the role of schooling in preparing people for employment, Western education is not generally recognised as having a positive influence on health (Dunbar & Scrimgeour 2007). The impact of education on employment and subsequently socio-economic

status is only one (albeit important) component of wellbeing, and the relationship between education and wellbeing may be unique in this context.

When determining the impact of education on Aboriginal and Torres Strait Islander health outcomes, the quality and cultural appropriateness of mainstream education need to be considered (Dunbar & Scrimgeour 2007). However, Bell and colleagues argue, ‘to suggest that education can be more or less culturally appropriate obscures the fact that Aboriginal culture depends for its continued existence on social practices, which are themselves educational’ (Bell et al. 2007). With the erosion of Aboriginal and Torres Strait Islander societies’ pre-colonial education and health systems and where culture and native languages remain excluded from mainstream education, there is indeed a need to consider education in a broader sense than represented by schooling or training courses (Educational Determinants of Aboriginal Health Group 2004). Aboriginal land management (ALM) is an example where learning combines intergenerational transmission of Aboriginal knowledge with science central to adaptive management of wildlife and ecosystems, that happens on country and provides a key link to health and wellbeing outcomes by reducing the stress of uncertainty and loss of control (Davies et al. 2010).

3.2.8 Economic participation

Work is the origin of many important determinants of health – including financial security, social status, personal development, social relations and self esteem – and thus the positive link between employment, resultant income and health status is well established (Lowry & Moskos 2007, Marmot et al. 2008). Workforce participation rates are considerably lower for people with poor health, particularly those with poor mental health (Laplagne et al. 2007). At the same time unemployment can impact on self-worth and identity and, in turn, health and wellbeing (Morrissey et al. 2007). While, in general, having a job is better for health than not having a job, the causality between health and workforce participation is not necessarily linear or one-way. Merely having a job will not always protect physical and mental health: job quality characterised by employment conditions, nature of work and job security is also important (Arthur 1999, Marmot et al. 2008, SCRGSP 2011, Wilkinson & Marmot 2003). For example, working might increase a person’s general activity level, thus improving physical health. Conversely, the nature of one’s work (working long hours or the insecurity of working too few hours) may lead to a deterioration in health (Laplagne et al. 2007).

The *Overcoming Indigenous Disadvantage* Report indicates that in 2008, the unemployment rate for Aboriginal and Torres Strait Islander Australians (17%) was over four times the national average (4%). In the same year, 32% of Aboriginal and Torres Strait Islander Australians aged 18 years and over reported high levels of psychological distress; 2.5 times the rate for other Australians. High/very high psychological distress levels were associated with lower income, lower educational attainment and lower employment status (SCRGSP 2011). Of all Aboriginal and Torres Strait Islander people considered to be in the workforce, 1 in 10 was participating in the Community Development Employment Projects program (CDEP) scheme (AIHW 2011a). The CDEP scheme, initially established in remote areas in May 1977, allocates funding to CDEP organisations for wages for Aboriginal participants at a level similar to or a little higher than income support payments, enhanced by administrative and capital support (Altman & Gray 2005). The CDEP scheme is much more significant in remote areas where there are fewer or no mainstream employment opportunities. It is often argued that the CDEP scheme is attractive to Aboriginal people as it allows a combination of participation in customary activities and the paid labour market (Altman & Gray 2005). The CDEP program will transition into the new Remote Jobs and Communities Program (RJCP) from 1 July 2013.

Lowry and Moskos identify *history*, *location* and *culture* as the interdependent factors that contribute to the ongoing low labour-market status of Aboriginal and Torres Strait Islander people:

- the *historical* exclusion of Aboriginal and Torres Strait Islander people from mainstream institutions due to beliefs of racial inferiority
- the remote *location* of 25% of the Aboriginal and Torres Strait Islander population where opportunities for mainstream employment are reduced
- and the importance of *cultural* engagement to Aboriginal and Torres Strait Islander people, particularly in remote locations, which may take priority over migrating for employment (Lowry & Moskos 2007).

To the extent that Aboriginal and Torres Strait Islander people may not relocate for employment opportunities, mobility has been identified as having a negative impact on employment outcomes (Halchuk 2006). In 2008 in remote areas, 46% of Aboriginal and Torres Strait Islander young people were not employed and not studying, compared with 23% of other young people (AIHW 2011a). Despite this, self-assessed health status is better overall in remote communities, which may reflect higher involvement in cultural activities and the potential that the CDEP might create other benefits, such as community development and overarching benefit to community wellbeing (Altman & Gray 2005, Walter & Mooney 2007).

Thus while unemployment is often quoted as a key determinant of the health disadvantage faced by Aboriginal and Torres Strait Islander people, Morrissey and colleagues argue that it has rarely been explored in detail (Morrissey et al. 2007). This is certainly the case in remote contexts where people often maintain traditionally oriented lifestyles involving hunting and gathering, and where material considerations are of lesser importance (Altman 2003). Conventional economic indicators are developed around the assumption that wealth accumulation and economic productivity within the mainstream employment sector are the positive and primary pathways toward wellbeing. However, these models exclude recognition of customary pursuits such as hunting, fishing and gathering that provide alternative income such as food, rather than cash (Altman 2003). They also exclude alternative markers of economic prosperity (and associated wellbeing) such as the socio-cultural status derived from controlling the distribution of customary food sources, or the status of the natural resource base from which economic wealth is derived (Prout 2011).

Dockery (2010) argues that – similar to the view of ‘education as assimilation’ (Boughton 2000) – indicators used in conventional frameworks to inform policy regarding Aboriginal and Torres Strait Islander economic development implicitly view attachment to traditional culture and lifestyles as a hindrance to the achievement of ‘mainstream’ economic goals (Dockery 2010). Taylor also notes that conventional measures are often interpreted through the lens of prevailing government policy that can sometimes be in direct conflict with Aboriginal and Torres Strait Islander perceptions of wellbeing. For example, governments generally interpret increased Aboriginal and Torres Strait Islander employment in the mining sector as a positive measure of socio-economic status. By contrast, this workforce participation can directly conflict with cultural obligations, particularly in relation to the land, and can therefore negatively impact wellbeing (Taylor 2008). In this sense, low levels of Aboriginal and Torres Strait Islander engagement in the labour force may be reflective of the different notions Aboriginal and Torres Strait Islander people hold about work (Hunter & Jordan 2010).

So while increasing employment somewhat addresses economic disadvantage, it is also important for reporting frameworks to recognise that different cultures may have different constructs of employment and work (Dockery 2010, Walter & Mooney 2007). The United Nations Permanent Forum on Indigenous

Issues recommends that Indigenous wellbeing reporting frameworks include some recognition of the value of Indigenous work such as ‘making a living’ rather than simply ‘having a job’. It advocates including indicators that provide insight into Indigenous participation, and economic benefit from, customary or subsistence activities in addition to, instead of, or in comparison with mainstream economic engagement. These might include ‘working on country’ programs (Prout 2011). Gaining a better sense of what ‘being employed’ or ‘being workful’ means to people, such as being employed in the mainstream labour market or engagement in tasks that contribute to community and/or cultural development, affords the opportunity to explore which method produces greater health benefits (Urquhart 2009). Certainly, Arthur (1999) found that in the Torres Strait, it cannot be assumed that employment is a social attraction and unemployment a social cost (Arthur 1999).

3.3 Emotional

3.3.1 Mental health/social and emotional wellbeing (SEWB)

The extent and impact of mental illness has been increasingly recognised in Australia over the last decade, and the comparably poor mental health of Aboriginal and Torres Strait Islander people is specifically documented (AIHW 2003, 2008; Council of Australian Governments 2006; Swan & Raphael 1995; Zubrick et al. 2005a). In assessing the burden of injury and disease for Aboriginal and Torres Strait Islander people, mental disorders were second to cardiovascular diseases. This subpopulation is 1.4 times more likely to experience a severe life stressor, twice as likely to report high to very high levels of psychological distress, and 2.3 times more likely to have contact with community mental health services compared to other Australians (ABS & AIHW 2008, AIHW 2008). Although limited epidemiological data exist on the type and prevalence of mental health disorders, from 1964 to 1984 reported mental illness prevalence rates were between 1.7 and 10% for Aboriginal and Torres Strait Islander adults and between 1.8 and 31.7% for children (Kyaw 1993). The most common conditions were personality disorders, depression, anxiety and schizophrenia. The first comprehensive collection of data on mental health and wellbeing was undertaken as part of the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) 2004–05 (ABS 2006c) and used to inform a number of youth, health and wellbeing summary reports (ABS & AIHW 2008; AIHW 2007, 2008). These showed similar increases in depression, anxiety and suicidal behaviours as observed within western cultures (ABS 2006c, Swan & Raphael 1995, Zubrick et al. 2005a). However, youth mortality for 12–24 year olds is four times that of non-Aboriginal and Torres Strait Islander youth, the leading cause being intentional self-harm or suicide (AIHW 2003).

Improvements in recognising and treating mental illness are hindered by a lack of understanding among mainstream health services of the unique cultural and circumstantial factors underlying mental illness among the Aboriginal and Torres Strait Islander population. International research on culture has demonstrated its impacts on the conceptualisation, definition, understanding and experience of health, and in this context mental health. The experience of disorders such as anxiety, depression and psychosis are considered universal, but the triggers, symptoms and understanding of these disorders vary to different degrees between cultures (Allen 1998, Bird 1996, Cuellar 1998, Dana 2001). For example, several researchers (Tatz 2001, Vicary & Westerman 2004, Westerman 2000) have identified that Aboriginal constructs of depression and suicide do not conform to the phenomenology set out in the Diagnostic and Statistical Manual 4th Edition (DSM IV) (APA 1994), but are instead attributed to an individual’s personality traits. Symptoms are generally only considered problematic when behaviour becomes more overt such as angry outbursts, crying publicly, self-harm or suicide attempts. Similarly, through developing and validating a screening tool for social and emotional wellbeing for use with Aboriginal and Torres

Strait Islander people (i.e. Strong Souls Checklist), Thomas and colleagues showed that feelings of sadness and low mood were linked with anxiety and not depression; and the expression of anger was verified as a unique symptom of depression for Aboriginal and Torres Strait Islander people (Thomas et al. 2010).

For Aboriginal and Torres Strait Islander people, mental health and wellbeing requires being in harmony with country, lawfulness, and correct social and kinship relationships; it is a belief system that does not differentiate between body and mind and is centred on an external locus of control, meaning that individual actions have little effect on outcomes (Anderson 1999; Burden 1994; Rose 1992; Vicary & Andrews 2000; Vicary & Westerman 2004; Westerman 2003, 2004). This is in contrast to a Western concept of ‘mental health’, which does not encompass these broader elements and instead relates health directly to the individual, with person-based assessment and treatment procedures.

This holistic and external attribution belief system has importance within the historical, social and political context of health and wellbeing. Aboriginal and Torres Strait Islander people and their cultures have been severely impacted by the processes of colonisation and subsequent policies, and associated trauma, loss and grief, forced separation of families and land, loss of culture and identity, social inequity and racial discrimination (Swan & Raphael 1995). Poor emotional wellbeing among Aboriginal and Torres Strait Islander people is inextricably linked with this context, with significant consequences, including substance abuse, domestic violence, child abuse, disruption of kin relationships, low socio-economic status, low educational outcomes, and high unemployment. While these factors continue to have intergenerational impacts on adults and youth, their impact has been difficult to quantify.

Of concern are several studies that signal elevated and complex mental and emotional problems among Aboriginal and Torres Strait Islander youth. For example, Zubrick, et al. (2005b) found that 24% of Aboriginal and Torres Strait Islander youth aged between 4 and 17 years were at high risk of clinically significant emotional or behavioural problems. Westerman (2003) identified high levels of co-morbidity and low resilience scores in Aboriginal and Torres Strait Islander youth, suggesting reduced protective factors may underlie psychiatric problems in this population. Resilience – described simply as ‘the capacity of the individual ... to “bounce back” in spite of significant stress or adversity’ (Alperstein & Raman 2003) – is consistently identified in the cross-cultural literature as an important factor in assessing mental health (Atwool 2006, Mykota & Schwean 2006, Ungar 2004, Zubrick & Robson 2003). Important characteristics of resilience identified from these studies include positive role models, a positive and even temperament, the ability to form peer relationships, strong relationships with family, and high self-esteem. Interestingly, the best protective factors can also contribute the most risk for poor emotional wellbeing when they are problematic, such as family and kin relationships (Carlton et al. 2006, Resnick 2000) and strong peer and community relationships (Atwool 2006, Clarke et al. 1999). Assessing an individual’s resilience or protective factors is therefore crucial in determining specific risks and areas of strength to work with for an intervention with this population.

3.3.2 Substance use and suicide

Substance use by Aboriginal and Torres Strait Islander people has long been recognised as one of the devastating consequences of colonisation, with associated health and social burdens increasingly recognised in remote communities (Kylie Lee et al. 2009). Researchers have identified substantial neurological, cognitive and psychological problems among Aboriginal and Torres Strait Islander people in relation to substance misuse, including petrol sniffing, cannabis, alcohol and tobacco (Cairney et al. 2005, 2007; Clough et al. 2005; Dingwall & Cairney 2011; Dingwall et al. 2011a, 2011b; Kylie Lee et al. 2009). (Cairney et al. 2007, Cairney et al. 2004, Cairney et al. 2005, Clough et al. 2005, Dingwall et al. 2010). Furthermore, Aboriginal and Torres Strait Islander people are four times more likely than the total

Australian population to be hospitalised with psychiatric illness as a result of psychoactive substance misuse (Kylie Lee et al. 2009, Thomson et al. 2011). In 2004–2008, the death rate from alcohol-related causes was 6.3 times higher for Aboriginal and Torres Strait Islander people than for other Australians (Thomson et al. 2011). In relation to illicit drug use, while illicit drug use is higher among Aboriginal and Torres Strait Islander people than other Australians, it is less common among those living in remote areas compared with those living in non-remote areas (Thomson et al. 2011).

In this population, limited employment and education opportunities; community-wide feelings of disempowerment; and grief and loss related to high mortality, morbidity and incarceration rates all serve as risk factors for substance misuse. Furthermore, Aboriginal and Torres Strait Islander cannabis users were less likely than non-users to participate in education or training and more likely to report suicidal ideation, symptoms of depression, and having been imprisoned (Kylie Lee et al. 2009). Strong links between cannabis use and depression are implicated as contributing to suicide in the NT (Measey et al. 2006). Boughton (2000) cites the continuing high number of Aboriginal deaths in custody and increasing youth suicide, including the ‘slow suicide’ of alcohol, drug and other substance use among many Aboriginal people, as an expression of extreme loss of meaning (Boughton 2000).

3.4 Cultural and spiritual

Moffatt (2011) talks of her own personal experiences of transgenerational trauma and its contribution to the mental, spiritual and physical unwellness of her family. After the death of her mother and the imprisonment of her son who went down ‘his own road of self-destruction’ using cannabis and speed and committing crime, Moffatt states: ‘I felt emotionally, psychologically and spiritually immobilised and trapped within myself (and this) took its toll on my mental and physical health, and I was diagnosed with my own life-threatening illness’ (Moffatt 2011). Through her experiences of dealing with her son’s mental illness, Moffatt ‘came to know and believe that Indigenous mental illness is also spiritual illness, as it is deeply connected to our spirituality and cultural beliefs’ (Moffatt 2011).

3.4.1 Culture, self-identity and social support

The literature on Aboriginal and Torres Strait Islander wellbeing describes *cultural health* as a key indicator of SEWB (Morrissey et al. 2007, Prout 2011). In an analysis of the ABS 2002 NATSISS, Dockery presents evidence that Aboriginal and Torres Strait Islander people with stronger attachment to their culture fare better on a range of outcomes (Dockery 2010). This analysis also supports the hypothesis that cultural attachment is important to identity formation for Aboriginal and Torres Strait Islander people, and a sense of self-identity is in turn important for mental health (Dockery 2011). Similarly, Durie (2001) argues that, ‘identity is a pre-requisite for mental health, and cultural identity depends not only on access to culture and heritage but also on opportunity for cultural expressions and cultural endorsement within society’s institutions’ (cited in Morrissey et al. 2007). Similarly, Chandler and Lalonde (1998) identified cultural continuity and identity as the main protective factors for suicide prevention among First Nations Canadians. It is now evident that past practices, such as the forced removal of children from their families and the undermining of parenting and familial roles, have led many Aboriginal and Torres Strait Islander people to grow up with emotional scars and cultural identity issues, leading to deep and highly visible problems such family violence and drug and alcohol abuse (Hermeston 2005). National evidence shows that stressful life events or conditions – such as not being able to get a job, involuntary loss of job, alcohol and/or drug-related problems, gambling, being witness to violence, abuse or violent crime, being in trouble with the police, having a member of family sent to/currently in jail, and overcrowding at home – adversely

affect individuals, families and communities (Zubrick et al. 2010). Aboriginal and Torres Strait Islander people are exposed to stressful life events 1.4 times more than other Australians (Zubrick et al. 2010).

The United Nations Permanent Forum on Indigenous Issues stresses the significance of language retention and fluency as important indicators of wellbeing for many Indigenous peoples (Prout 2011). For the Māori in New Zealand, it is accepted that wellbeing not only depends on participation and achievement in wider society, but also participation and achievement in Māori society (Davies et al. 2010, Durie 2006).

Measures such as community functioning show that Aboriginal and Torres Strait Islander people draw strength from a range of health determinants such as connectedness to family, land, culture and identity (AHMAC 2011). Distinguishing characteristics of Aboriginal and Torres Strait Islander culture include centrality of family and the extended kinship system, low emphasis on individual ownership of possessions relative to obligations and contributions to the other members of the family and community, and the role of connections to land and the past in a sense of self-identity (Dockery 2010). Traditional teachings and knowledge also provide a basis for positive self-image and healthy identity among Aboriginal and Torres Strait Islander people (King et al. 2009).

Optimal wellbeing occurs when there is strong cultural identity in combination with control and achievement at a wider societal level, such as through successful engagement in education, employment and health. In relation to education, it may be argued that Aboriginal and Torres Strait Islander ceremonial and social obligations limit school attendance rates; on the other hand, it may also be argued that strong cultural orientation promotes resilience and better educational outcomes (Dockery 2010). Awofeso (2011) asserts that, ‘internalisation of positive Indigenous identity as well as educational and career successes provide significant counterweights to being subject to racial stereotypes and discrimination, and is strongly associated with healthier lifestyles’ (Awofeso 2011). In the case of employment, while it might be an important indicator for wellbeing for many Australians, if it is at the expense of connection with country, family and community, it may not result in the actual improvement of wellbeing for an Aboriginal or Torres Strait Islander person (Gooda 2010). Morrissey and colleagues argue that the relationship of culture to health for Aboriginal and Torres Strait Islander people can only be understood within the context of their degree of power over their circumstances (Morrissey et al. 2007). Internationally, comparable Indigenous populations have successfully used informal activities focusing on culture in the rehabilitation of substance abuse and management of diabetes (see Burgess et al. 2005).

Aboriginal and Torres Strait Islander peoples’ attachment to country is a fundamental practice of culture, and this is discussed in detail in section 3.1.2.

3.5 Towards a wellbeing framework

In moving towards the development of a wellbeing framework, the collaborative *Community Indicators Victoria* Project (CIVP) provides a good example of an initiative whose goal is to ‘support the development and use of local community wellbeing indicators as a tool for informed, engaged and integrated community planning and policy making’ (West & Langworthy 2007). Relevant to the smaller population of Aboriginal and Torres Strait Islander people in remote Australia, CIVP focuses on a small number of headline wellbeing measures to gather trends and outcomes important to local communities. As stated by the CIVP, the purpose of an indicators framework is to provide an integrated perspective on community progress in a manner that ties together the various contributing factors to community wellbeing (Wiseman et al. 2006). Their criteria for choosing local community indicators are that they measure what is valued, are conceptually sound, make sense and are useful to citizens and policy makers, and are relevant and measurable at a local level (West & Langworthy 2007).

4. A wellbeing framework for Aboriginal and Torres Strait Islander people in remote Australia

Based on this review of the academic literature and global and national initiatives, the following recommendations are made towards the development of a wellbeing framework for Aboriginal and Torres Strait Islander people in remote Australia.

Key Recommendations

Recommendation 1 – Aboriginal and Torres Strait Islander people are involved in the research and their perspectives represented

A wellbeing framework for Aboriginal and Torres Strait Islander people in remote Australia must have strong input from Aboriginal and Torres Strait Islander people in design, monitoring and interpretation and must represent Aboriginal and Torres Strait Islander values, perspectives and priorities.

While identifying the right indicators and measures is a complex task, without a clear and relevant framework for health and wellbeing, the goals and priorities of more powerful interests can overshadow those of remote Aboriginal and Torres Strait Islander communities. The *Community Indicators Victoria Project (CIVP)* developed a community wellbeing indicator framework with local-level data in order to address issues identified as important by local communities in Victoria. In developing this framework, the CIVP aimed to choose a set of indicators that were ‘small and meaningful and that facilitate our understanding of where we are going and in relation to our values’ (Wiseman et al. 2006). Similarly, and as argued by Bauer (1966), the real purpose of indicators is to ‘enable us to assess where we stand and are going with respect to our values and goals’, thus giving rise to the questions: Whose values? Whose goals? (Wiseman et al. 2006). The literature examined here certainly indicates a continued absence and marginalisation of Aboriginal and Torres Strait Islander meanings of health and wellbeing and a lack of recognition of this population’s concerns or interests (Freemantle et al. 2007, Pholi et al. 2009, Smylie et al. 2006, Taylor 2008). Moreover, much of the literature argues that mainstream indicator frameworks that collect data on Aboriginal and Torres Strait Islander societies are for bureaucratic purposes and shaped by political agendas, rather than to support the objectives and determinants identified by Aboriginal and Torres Strait Islander people themselves (Smylie et al. 2006, Yu 2011).

Expanded research models that account more fully for the social and historical contexts that influence the health of individuals and populations are important in addressing continuing disparities (Banks 2012). Most of the innovative models of research, proposed by Indigenous researchers nationally and internationally, highlight the need to adopt new ways of seeing that respect local Indigenous ways of knowing and adopt participatory approaches whereby knowledge remains under the control of the community (Kendall et al. 2011). Although much progress has been made in this area, the literature concludes that Indigenous performance measurement systems in Canada, Australia and New Zealand are underdeveloped locally and hence deficient in their support of local service development (Smylie et al. 2006). This deficit is particularly pertinent for Aboriginal and Torres Strait Islander people living in remote Australia who experience limited access to valuable resources, appropriate primary health care and other services (Altman 2003, Wakerman et al. 2008).

The strategies used to collect information are just as important as the nature of information collected, particularly for populations who have been systematically marginalised within a society (Banks 2012). Self-assessed health is one of very few measures of overall health status currently available for Aboriginal

and Torres Strait Islander peoples throughout the country (AHMAC 2011). Morrissey argues for the need to utilise ‘a full arsenal of social research methods, both quantitative and qualitative’ if we are to tackle the complexities of the social causes of Aboriginal ill-health (Morrissey 2003). Banks promotes storytelling as a data collection method that can expand our understanding of the particular contexts in which health and health decision-making occurs, more actively involve the target population, and build bridges between researchers and communities (Banks 2012).

Recommendation 2 – A strength-based model is used rather than focusing on deficits

Move away from models that focus on deficit and dysfunction for Aboriginal and Torres Strait Islander people towards a framework that identifies and promotes successes and strength.

The OID report identifies a vision of ‘a society where Aboriginal and Torres Strait Islander peoples should enjoy a similar standard of living to that of other Australians, without losing their cultural identity’. However, as previously discussed, ‘the OID framework can be seen to be measuring aspects of Aboriginal ‘ill-being’ rather than Aboriginal wellbeing’ (Jordan et al. 2010). Comparing the measures between Aboriginal and Torres Strait Islander people and other Australians homogenises the varied health and wellbeing of individual Aboriginal people (Kowal & Paradies 2010). Focusing on the disparity between the groups can also result in a misplaced characterisation of Aboriginal and Torres Strait Islander peoples as being ‘dysfunctional’ (Jordan et al. 2010) as well as tying Aboriginal and Torres Strait Islander identity to inevitable ill health (Taylor et al. 2010). In such an approach, there is limited scope for recognising Aboriginal and Torres Strait Islander people’s strengths, resources and capabilities, which equally contribute to their wellbeing (Jordan et al. 2010).

A key goal for a wellbeing framework, therefore, is that it relates to local circumstances and engages with Aboriginal and Torres Strait Islander meanings, knowledge and understanding. A greater emphasis on building local measurement systems might enable an increased responsiveness to local cultural values and priorities (Smylie et al. 2006). Moreover, and as identified by the SEWB Framework 2004–09, an Aboriginal and Torres Strait Islander wellbeing framework should be guided by a recognition of the strengths and resilience of Aboriginal and Torres Strait Islander people (SHRG 2004). It is also important that any framework measures progress towards community goals.

Recommendation 3 – Focus on interrelationships

A wellbeing framework for Aboriginal and Torres Strait Islander people in remote Australia must take a whole-of-system approach where all components are interrelated.

Much of the literature examined here identifies interrelationships that exist across the various components of a wellbeing framework, including education, employment, health and wellbeing, which are rarely linear or unilateral. Together with recognising the dynamic nature of these interrelationships when attempting to understand and address wellbeing, it is also important to consider the unique determinants and contexts that exist for Aboriginal and Torres Strait Islander people in remote Australia, which ‘require a model that permits researchers and governments to explore the pathways that influence health and the points at which interventions will be more effective’ (Reading & Wien 2009). The WHO defines the social determinants of health as ‘the conditions in which people are born, grow, live, work and age, including the health system’ (World Health Organization 2008); for Aboriginal and Torres Strait Islander people, these conditions include a history of colonisation; discrimination and social exclusion; removal of family, culture and

country; loss of control; and denigration as a people, whose strengths and resilience are continually sidelined. The literature shows that these factors often overlap and are influential across all education, employment, health and wellbeing outcomes for Aboriginal and Torres Strait Islander people.

This literature review has identified that many interrelationships exist between multiple indicators across education, employment, health and wellbeing and these are influenced by contextual factors and experiences that are unique to Aboriginal and Torres Strait Islander people in remote Australia. Relationships between different components of a wellbeing framework do not occur in isolation; rather, they interrelate as a whole system. Most importantly, the development of an appropriate and effective wellbeing framework must incorporate Aboriginal and Torres Strait Islander concepts and knowledge of health and wellbeing, and ideas and aspirations in relation to participation in formal education or employment in the mainstream labour market. The collection, analysis and interpretation of information within such a wellbeing framework may be used to understand if and why, for example, the positive health effects of schooling seen in third world countries may not translate for Aboriginal and Torres Strait Islander people (Dunbar & Scrimgeour 2007, Ewald & Boughton 2002, Malin 2003). This approach may also be used to understand how strong cultural orientation may promote resilience and better educational outcomes for Aboriginal and Torres Strait Islander people (Davies et al. 2010), and therefore create an evidence base to inform policies and interventions to improve education, employment, health and wellbeing outcomes for Aboriginal and Torres Strait Islander people and communities. Thus, a framework that aims to collect and analyse long-term health and wellbeing data for Aboriginal and Torres Strait Islander people across these factors must recognise the interdependent nature of these interrelationships at an overarching whole-of-system level.

Recommendation 4 – The following core themes are represented across the framework

The following core themes have been identified as highly influential over the interrelated system that represents wellbeing in this context.

Theme 1 – Kinship, culture, land and spirituality

The literature examined here highlights the importance of connection to land and cultural activities as important factors to many Aboriginal and Torres Strait Islander people's beliefs about mental, social and emotional wellbeing (Zubrick et al. 2010). This is particularly true for people living in remote communities, where engagement in traditional activities continues to be practised (Campbell et al. 2008, Scrimgeour 2007). Continued association with and caring for ancestral lands – related to autonomy and mastery over life; cohesion with kin, ancestors and land; and strengthening the traditional base for governance – has been shown to be associated with significantly better health, including decreased incidence of diabetes, renal disease and hypertension, along with decreased stress levels (Burgess et al. 2009). Capturing the complexity of this information and of the interrelationships that exist within and between these factors is required. Rather than looking solely at numbers of people living on country and their health, for example, there is a need to focus on the *quality* of living on country – whether people living on or near country are able to choose how they express their connection to country (Ganesharajah 2009). In regards to 'Caring for Country' programs, it would be useful to collect information on participation in these and other tradition-oriented activities, as well as the impact this might have on physical and mental health. Information to be collected under this domain could include traditional language use and retention; measures relating to kinship and community networks and relationships; access to culture and heritage; ability to access land for own purposes; 'work' on land; and contribution 'work' on land makes to livelihood for self and/or family (e.g. provide food, shelter, money, status; sense

of identity: self and cultural; sense of autonomy and control). The wellbeing framework proposed by the United Nations Permanent Forum on Indigenous Issues has also included other relevant themes and indicators: actual control of territories, lands and natural resources; and measures to protect traditional production and subsistence (Jordan et al. 2010).

Theme 2 – Control or Empowerment

The Ottawa Charter states that ‘people cannot achieve their fullest health potential unless they are able to *take control* of those things which determine their health’ [our emphasis] (World Health Organization 1986). The CSDH Report asserts the importance of creating the conditions that enable people to take control of their lives (Marmot 2011) and the literature substantiates the strong influence control and empowerment have on Aboriginal and Torres Strait Islander people’s health and wellbeing (Askill-Williams et al. 2007, Central Australian Aboriginal Congress 2011). Factors that influence people’s level of control – perceived and actual – have been shown in the literature to be interrelated and overlapping. Racism, for example impacts on self-esteem and confidence, which impacts on the level of control people feel they have over their life circumstances (Reading & Wien 2009). Connection to land, including knowledge of sacred sites and rituals, provides a basis for individual autonomy, which is achieved through relatedness to kin and country. Collective esteem, efficacy, control and self-determination also result from cohesion with kin, ancestors and country and, inherently, in maintaining cultural beliefs and cultural practices (Burgess & Morrison 2007, Zubrick et al. 2010). Thus indicators located under other domains are also relevant to control, both individual and collective. Decision-making and control of resources are also important indicators, as they reflect standing within families and communities.

Control or mastery is also influenced by alienation, including loss and grief as a result of colonisation; disassociation from meaningful work; and being distanced from power and resources that may enable self-determination in political, economic and social settings (Daniel et al. 2006). Similar to those found in Theme 3 below, relevant indicators may include experiences of racism and associated outcomes of such experiences. The broad-reaching influences on control should also encompass access to health and other services, including education and employment, and the relevance of such services to Aboriginal and Torres Strait Islander people. At the individual level, indicators of control may include educational and employment status and their relative influence, status within kinship systems, family and local governance, and access to support people and services. At a community level, control may be indicated by the accessibility of meaningful education and work opportunities; health treatment options; the involvement of community members in governing education and health systems; representation of local people in regional, state or national governance; and opportunity for development generally.

Theme 3 – Healthy, safe and inclusive communities

Hunter and Jordan argue that the OID framework is notable for its failure to acknowledge social exclusion as a key health determinant, and its lack of recognition of the needs and aspirations of Aboriginal and Torres Strait Islander people (Hunter & Jordan 2010). They state that ‘if “improved wealth creation and economic sustainability” is taken to mean participation in the mainstream labour market or the prevalence of home ownership, alternative forms of Aboriginal economic activity are overlooked’ (Hunter & Jordan 2010). Moreover, social *exclusion* implies that one is being excluded from something, presumably mainstream society, and they suggest that shifting the focus to social *inclusion* would allow policy makers to acknowledge that people can choose to be included in a range of social and economic practices, such as education or employment (Hunter & Jordan 2010).

Rather than collecting data on employment status then, information may be sought on what activities respondents chose to participate in. Collecting information on the preferences, incentives and opportunities

available to Aboriginal and Torres Strait Islander people to participate in mainstream and customary employment activities and engagement in mainstream and tradition-orientated learning may also be useful here. The ABS Wellbeing Framework does attempt to explore ‘accessibility’ and ‘cultural security’ under its ‘work’ domain (ABS 2011b). In addition, collecting information regarding opportunities for accessing mainstream or Aboriginal and Torres Strait Islander–controlled health and other services would be reflective of the inclusion and opportunity Aboriginal and Torres Strait Islander people have in choosing to participate in a society they value, are valued in, and which has meaning to them. This may involve collecting information regarding functioning and cohesive communities, for example, relating to kinship and community networks and relationships. Collecting information on social and structural conditions is also important as a predominantly individualistic focus on data collection – which Close the Gap and the OID framework have been accused of having – fails to account for an imbalanced distribution of power and limited degree of Aboriginal and Torres Strait Islander control over their own circumstances (Pholi et al. 2009).

Racial discrimination can isolate Aboriginal children and young people from both mainstream society and their own culture and community (Zubrick et al. 2006a). In addition, racial discrimination is shown to be associated with a range of adverse health conditions, including internal stress, subsequent mental health and chronic physical health problems, and attempted suicide (Malin 2003, Paradies et al. 2008, Zubrick et al. 2010). It makes sense under this domain, then, to collect information on experiences of racism and discrimination or of acceptance/inclusiveness in the education system, mainstream employment market, and health and other services, as well as inclusion/connection to mainstream society and own culture and community.

Theme 4 – Resilience

Resilience – what keeps people strong in the face of adversity and stress – is an important notion known to affect health and wellbeing, particularly for Aboriginal and Torres Strait Islander people (King et al. 2009, Zubrick et al. 2010). The SEWBF highlights the need to recognise the strengths, resilience, and cultural and historical diversity of Aboriginal and Torres Strait Islander communities and, in doing so, acknowledge the potential for Aboriginal and Torres Strait Islander needs to be addressed by locally developed strategies (SHRG 2004). As part of wellbeing knowledge, the literature also indicates the need to identify the protective factors known to people that helped them to survive several generations of trauma, adverse events and extreme disadvantage post-colonisation (Zubrick et al. 2010). Thus, a theme that addresses the components of resilience is important if there is to be any real progression towards enabling Aboriginal and Torres Strait Islander people to draw on their unique strengths and diversity in order to improve education, employment, health and wellbeing outcomes. Moreover, a framework that enables the collection of information that demonstrates Aboriginal and Torres Strait Islander function – rather than dysfunction – is highly needed.

Resilience has many facets highlighted in the literature as important to Aboriginal and Torres Strait Islander people, including spiritual connections, ties with kin and community, connection to the land, and cultural and historical continuity (King et al. 2009). The previous three themes proposed in this conceptual framework and many of their indicators, therefore, feed into this theme of *resilience* in the sense that they cover the factors that *contribute* to the ability of individuals and communities to be resilient.

Since resilience requires a positive outcome amid a climate of increased risk (as Aboriginal and Torres Strait Islander people continue to experience), identifying communities that have somehow managed to ‘beat the odds’ enables an exploration of what works for Aboriginal and Torres Strait Islander people (Lalonde 2006). Some insight into functioning and resilience is achieved by measuring the extent to which

communities have taken active steps to preserve or promote their own cultural heritage and to regain control over various aspects of their communal life, such as through legal title to traditional lands and forms of self-government, through reasserting control over education and the provision of health care, as well as steps taken to promote and encourage traditional cultural events and practices (Lalonde 2006). In gathering such information, what is also needed instead of the usual top-down forms of ‘knowledge transfer’ is some way to facilitate lateral ‘knowledge exchange’ that encourages and promotes the cross-community sharing of those experiences and forms of knowledge that enable resilience and improve Aboriginal and Torres Strait Islander education, employment, health and wellbeing (Lalonde 2006). Gathering information regarding relevant indicators under this domain should aim to draw on the unique experiences of Aboriginal and Torres Strait Islander people through qualitative methods such as story telling or narratives. Indicators may include achievement across areas of personal and community value; strong family networks; the presence of role models; level of acculturation; social and emotional wellbeing; self-esteem; gambling; substance use; domestic violence; experience of trauma and abuse; diet; physical activity; and opportunity for cultural expressions and cultural endorsement.

Recommendation 5 – The framework has broad definitions of its core domains:

Domain 1 – That *education* is considered as *learning* being inclusive of mainstream education and training but extending beyond to include all activities of learning related to work and health such as learning Aboriginal and Torres Strait Islander knowledge.

Domain 2 – That *employment* is considered as *livelihood* being inclusive of mainstream employment with income as an indicator, but extending to include other livelihood activities including voluntary or traditional roles.

Domain 3 – That *health* is considered as biomedical health as well as *social and emotional wellbeing*, and culturally relevant notions of health, particularly, *resilience*.

5. Conclusion

While the gathering of statistical data within existing frameworks has provided an understanding of the levels of disadvantage experienced by Aboriginal and Torres Strait Islander people, further development is needed to better represent Aboriginal and Torres Strait Islander notions of health and wellbeing, particularly in the remote context.

This review has suggested some ways forward in developing a wellbeing framework that are collaborative, inclusive and represent the strengths, values and perspectives of Aboriginal and Torres Strait Islander people in remote areas. The importance of going beyond formal indicators – such as levels of achievement as an indicator of education and income as an indicator of employment – are identified. For example, the many ways that people learn and work in this context, such as learning traditional knowledge passed down from elders, and the work that people do to care for family, land and for cultural maintenance, are as important here as formal indicators of education and employment and need to be represented equivalently. Similarly, in addition to biomedical indicators of health, culturally relevant indicators of the broader social and emotional issues and impacts relating to health – including nutrition, exercise, relationships, lifestyle and history – will need emphasis and further development.

Importantly, the review has identified core themes that are integral to understanding the interrelationships between education, employment, health and wellbeing and must therefore be represented centrally in the wellbeing framework. The first of these themes includes factors central to culture such as *kinship, family, land and spirituality*. While much is written and spoken of these factors, they are by nature represented qualitatively and are much more difficult to represent in large-scale information systems such as those used for policy decision making that are generally quantitative. Second is the theme of *empowerment or control* that can be monitored individually and socially as self-efficacy and at local community, regional and state levels as active involvement in governance structures. Third is the theme of communities that are *safe, healthy and inclusive*, acknowledging that local social and infrastructural factors interplay with internal or personal factors as well as more external or wider societal factors to influence wellbeing. Objective measures of community safety, industries, schooling, law enforcement and opportunities as well as subjective measures that identify perceived safety, inclusiveness and opportunity are important. The fourth theme of *resilience* represents the resources and capacity of people and communities to respond to stress and adversity, and includes protective and risk factors and their relative impacts.

Qualitative research with local Aboriginal and Torres Strait Islander people living in remote communities must be conducted to determine the most influential factors within these domains, and how these concepts and values can be translated to indicators that give local perspectives a voice in the statistical language of policy. In alignment with recommendations from this review, the involvement of local Aboriginal and Torres Strait Islander community perspectives and people is required at all stages and levels of the research to understand wellbeing and its influences accurately and authentically. Aboriginal and Torres Strait Islander people must therefore be involved across community, researcher, communications and governance levels through various strategies, including advisory, employment, capacity development and engagement. While these conclusions reflect a review of the relevant literature, interactive and qualitative sessions with diverse Aboriginal and Torres Strait Islander groups living in remote areas nationally are now required to refine and consolidate a wellbeing framework. Importantly, qualitative processes as these must be evaluated and documented both to contribute to the development of knowledge and to validate effective processes of genuine knowledge sharing.

References

- ABS (Australian Bureau of Statistics). 2006a. *Housing and Infrastructure in Aboriginal and Torres Strait Islander Communities*. Cat. no. 4710.0. Australian Bureau of Statistics. Canberra. Retrieved June, from [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/E4705677FB7487A2CA2572BF001962CE/\\$File/47100_2006%20\(Reissue\).pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/E4705677FB7487A2CA2572BF001962CE/$File/47100_2006%20(Reissue).pdf).
- ABS (Australian Bureau of Statistics). 2006b. *Aboriginal and Torres Strait Islander Home Ownership: A snapshot, 2006*. Cat. no. 4722.0.55.005. Australian Bureau of Statistics. Canberra. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4722.0.55.005>.
- ABS (Australian Bureau of Statistics). 2006c. *National Aboriginal and Torres Strait Islander Health Survey 2004-05*. Cat. No. 4715.0. Australian Bureau of Statistics. Canberra.
- ABS (Australian Bureau of Statistics). 2008. *Housing and Services in Remote Aboriginal and Torres Strait Islander Communities*. Cat. no. 4102.0. Australian Bureau of Statistics. Canberra. Retrieved June, from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Chapter9202008>.
- ABS (Australian Bureau of Statistics). 2009. *National Aboriginal and Torres Strait Islander Social Survey: Users' Guide 2008*. Retrieved 7 February, from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4714.0>.
- ABS (Australian Bureau of Statistics). 2011a. *Australian Social Trends 2011: Education and Indigenous Wellbeing*. Catalogue No. 4102.0. Australian Bureau of Statistics. Canberra.
- ABS (Australian Bureau of Statistics). 2011b. *ABS: Framework for measuring wellbeing – Aboriginal and Torres Strait Islander peoples*. Australian Bureau of Statistics. Canberra. Retrieved 2 December 2012, from <http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/4703.0Main%20Features12010?opendocument&tabname=Summary&prodno=4703.0&issue=2010&num=&view>.
- ABS & AIHW (Australian Bureau of Statistics & Australian Institute of Health and Welfare). 2005. *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2005*. ABS Cat no. 4704.0; AIHW Cat. no. AIHW 14. Australian Government. Canberra. Retrieved December, from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3919938725CA0E1FCA256D90001CA9B8>.
- ABS & AIHW (Australian Bureau of Statistics & Australian Institute of Health and Welfare). 2008. *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2008*. ABS Cat no. 4704.0; AIHW Cat. no. AIHW 21. Australian Government. Canberra.
- AHMAC (Australian Health Ministers' Advisory Council). 2011. *Aboriginal and Torres Strait Islander Health Performance Framework Report 2010*. Australian Government Department of Health and Ageing. Canberra.
- AIHW (Australian Institute of Health and Welfare). 2003. *Australia's young people: their health and Wellbeing 2003*. Australian Institute of Health and Welfare. Canberra.
- AIHW (Australian Institute of Health and Welfare). 2007. *Young Australians: their health and wellbeing 2007*. Australian Institute of Health and Welfare. Canberra.
- AIHW (Australian Institute of Health and Welfare). 2008. *Australia's Health 2008*. Australian Institute of Health and Welfare. Canberra.
- AIHW (Australian Institute of Health and Welfare). 2011a. *The health and welfare of Australia's Aboriginal and Torres Strait Islander people, an overview 2011*. Australian Institute of Health and Welfare. Canberra.
- AIHW (Australian Institute of Health and Welfare). 2011b. *Aboriginal and Torres Strait Islander Health Performance Framework 2010: detailed analyses*. Cat. no. IHW 53. AIHW. Canberra. Retrieved 13 December 2012, from <http://www.aihw.gov.au/publication-detail/?id=10737420099>.
- Allen J. 1998. Personality Assessment with American Indians and Alaskan Natives: Instrument Considerations and Service Delivery Style. *Journal of Personality Assessment* 70(1), 17–41.
- Alperstein G and Raman S. 2003. Promoting mental health and emotional well-being among children and youth: a role for community child health? *Child: Care, Health and Development* 29(4), 269–74.

- Altman J. 2003. The economic and social context of Indigenous health. In *The health of Indigenous Australians*. Ed. Thomson N. pp 25–43. Oxford University Press. South Melbourne.
- Altman J, Biddle N and Buchanan G. 2011. Statistics about the customary sector of the Indigenous economy: Survey, policy and political implications. *Social Science Perspectives on the 2008 National Aboriginal and Torres Strait Islander Social Survey*. 11–12 April, Australian National University. Canberra.
- Altman J and Gray M. 2005. *The Economic and Social Impacts of the CDEP Scheme in Remote Australia*. *Australian Journal of Social Issues* 40(3) 399–410.
- Anderson I. 1999. Aboriginal Well-being. In *Health in Australia: Sociological Concepts and Issues*. Ed. Grbich C. pp. 53–73. Longman. NSW.
- Anderson IPS and Whyte JD. 2008. Populations at special health risk: Indigenous populations. *International Encyclopedia of Public Health*. pp. 215–224. Academic Press. Elsevier. San Diego.
- APA (American Psychiatric Association). 1994. *Diagnostic and Statistical Manual, Fourth Edition (DSM IV)*. American Psychiatric Association. Washington DC.
- Arthur WS. 1999. *Careers, aspirations and the meaning of work in remote Australia: Torres Strait*. Centre for Aboriginal Economic Policy Research Discussion Paper No. 190/1999. Australian National University. Canberra.
- Askell-Williams H, Coughlan M, Lawson M, Lewis F, Murray-Harvey R, O'Donnell K, Peppard J, Slee P and Ulalka S. 2007. Chapter 4: You can't have one without the other – transactions between education and wellbeing for Indigenous Peoples. In *Beyond Band-aids: exploring the underlying social determinants of Aboriginal health. Papers from the Social Determinants of Aboriginal Health Workshop, Adelaide, July 2004*. Eds. Anderson I, Baum F and Bentley M. pp. 56–76. Cooperative Research Centre for Aboriginal Health. Darwin.
- Atwool N. 2006. Attachment and Resilience: Implications for Children in Care. *Child Care in Practice*. 12(4), 315–30.
- Awofeso N. 2011. Racism: a major impediment to optimal Indigenous health and health care in Australia. *Australian Indigenous Health Bulletin* 11(3), 1–13.
- Bailie RS, McDonald EL, Stevens M, Guthridge S and Brewster DR. 2011. Evaluation of an Australian indigenous housing programme: community level impact on crowding, infrastructure function and hygiene. *Journal of Epidemiology and Community Health* 65(5), 432–37.
- Bailie RS, Stevens M and McDonald EL. 2012. The impact of housing improvement and socio-environmental factors on common childhood illnesses: a cohort study in Indigenous Australian communities. *Journal of Epidemiology and Community Health* 66(9), 821–31.
- Banks J. 2012. Storytelling to access social context and advance health equity research. *Preventive Medicine* 55(5), 394–397. doi:10.1016/j.ypmed.2011.10.015.
- Bauer RA (Ed.). 1966. *Social Indicators*. The MIT Press. Cambridge, Mass., London.
- Bell S, Boughton B and Bartlett B. 2007. Chapter 3: Education as a determinant of health. In *Beyond Band-aids: exploring the underlying social determinants of Aboriginal health. Papers from the Social Determinants of Aboriginal Health Workshop, Adelaide, July 2004*. Eds. Anderson I, Baum F and Bentley M. pp. 37–55. Cooperative Research Centre for Aboriginal Health. Darwin.
- Biddle N. 2010. *A human capital approach to the educational marginalisation of Indigenous Australians*. Centre for Aboriginal Economic Policy Research Working Paper No. 67/2010. Australian National University. Canberra.
- Biddle N. 2011. *An Exploratory Analysis of the Longitudinal Survey of Indigenous Children*. Australian National University. Canberra.
- Bird H. 1996. Epidemiology of Childhood Disorders in a Cross-Cultural Context. *Journal of Child Psychology and Psychiatry* 37(1), 35–49.
- Blair E, Zubrick R, Cox A and WAACHS Steering Committee. 2005. The Western Australian Aboriginal Child Health Survey: findings to date on adolescents. *Medical Journal of Australia* 183(8) 433–35.

- Boughton B. 2000. *What is the connection between Aboriginal education and Aboriginal health?* Occasional paper series, Issue no. 2, 2000. Cooperative Research Centre for Aboriginal and Tropical Health. Darwin.
- Brimblecombe JK and O’Dea K. 2009. The role of energy cost in food choices for an Aboriginal population in northern Australia. *Medical Journal of Australia* 190(10), 549–51.
- Burden J. 1994. Health: a holistic approach. In *Aboriginal Australia: An Introductory Reader in Aboriginal Studies*. Eds. Bourke C, Bourke E and Edwards B. pp. 157–78. Queensland University Press. Queensland.
- Burgess CP, Berry HL, Gunthorpe W and Baillie RS. 2008a. Development and preliminary validation of the ‘caring for country’ questionnaire: measurement of an Indigenous Australian health determination. *International Journal for Equity in Health* 7:26. doi:10.1186/1475-9276-7-26.
- Burgess, Mileran A and Baillie R. 2008b. Beyond the mainstream: health gains in remote Aboriginal communities. *Australian Family Physician* 37(12), 986–88.
- Burgess C, Johnston F, Berry H, McDonnell J, Yibarbuk D, Gunabarra C, Mileran A and Baillie R. 2009. Healthy country, health people: the relationship between Indigenous health status and ‘caring for country’. *Medical Journal of Australia* 190(10), 567–72.
- Burgess C, Johnston F, Bowman DMJS and Whitehead P. 2005. Healthy Country: Healthy People? Exploring the health benefits of Indigenous natural resource management. *Australian and New Zealand Journal of Public Health* 29(2) 117–22. doi: 10.1111/j.1467-842X.2005.tb00060.x.
- Burgess P and Morrison J. 2007. Chapter 9: Country. In *Social determinants of Indigenous health*. Eds. Carson B, Dunbar T, Chenhall R and Baillie R. pp. 177–202. Allen & Unwin. Darwin.
- Cairney S, Clough A, Jaragba M and Maruff P. 2007. Cognitive impairment in Aboriginal people with heavy episodic patterns of alcohol use. *Addiction* 102(6), 909–15.
- Cairney S, Maruff P, Burns CB, Currie J and Currie BJ. 2004. Saccade dysfunction associated with chronic petrol sniffing and lead encephalopathy. *Journal of Neurology, Neurosurgery and Psychiatry*. 75(3), 472–76.
- Cairney S, Maruff P, Burns CB, Currie J and Currie BJ. 2005. Neurological and cognitive recovery following abstinence from petrol sniffing. *Neuropsychopharmacology*. 30(5), 1019–27.
- Campbell D. 2000. *Economic issues in the valuation of and compensation for loss of Native Title rights*. Issues Paper No. 8, vol. 2. Native Title Research Unit. Australian Institute of Aboriginal and Torres Strait Islander Studies. Canberra.
- Campbell D. 2002. The Indigenous sector: An economic perspective’. In *Valuing Fisheries: An Economic Framework*. Ed. Hundloe T. pp. 167–186. University of Queensland Press. Brisbane.
- Campbell D, Burgess CP, Garnett ST and Wakerman J. 2011. Potential primary health care savings for chronic disease care associated with Australian Aboriginal involvement in land management. *Health Policy* 99(1), 83–89.
- Campbell D, Davies J and Wakerman J. 2008. Facilitating complementary inputs and scoping economies in the joint supply of health and environmental services in Aboriginal central Australia. *Journal of Rural and Remote Health*. 8(1010), 1–13.
- Carlton BS, Goebert DA, Miyamoto RH, Andrade NN, Hishinuma ES, Makini GK Jr, Yuen NY, Bell CK, McCubbin LD, Else IR and Nishimura ST. 2006. Resilience, family adversity and well-being among Hawaiian and non-Hawaiian adolescents. *International Journal of Social Psychiatry* 52(4), 291–308.
- Carson B, Dunbar T, Chenhall R and Baillie R. 2007. *Social Determinants of Indigenous Health*. Allen & Unwin. Sydney. NSW.
- Central Australian Aboriginal Congress. 2011. *Rebuilding Family Life in Alice Springs and Central Australia: the social and community dimensions of change for our people*. Alice Springs. Retrieved 6 February, from <http://www.caac.org.au/files/pdfs/Rebuilding-Families-Congress-Paper.pdf>.

- Chandler MJ and Lalonde C. 1998. Cultural Continuity as a Hedge against Suicide in Canada's First Nations. *Transcultural Psychiatry* 35(2), 191–219.
- Clarke C, Harnett P, Atkinson J and Shochet I. 1999. Enhancing resilience in Indigenous people: the integration of individual, family and community interventions. *Aboriginal and Islander Health Worker Journal* 23(4), 6–10.
- Clough AR, d'Abbs P, Cairney S, Gray D, Maruff P, Parker R and O'Reilly B. 2005. Adverse mental health effects of cannabis use in two indigenous communities in Arnhem Land, Northern Territory, Australia: exploratory study. *Australian & New Zealand Journal of Psychiatry* 39(7), 612–20.
- Costello A, Abbas M, Allen A, Sarah B, Bell S, Bellamy R, Friel S, Groce N, Johnson A, Kett M, Lee M, Levy C, Maslin M, McCoy D, McGuire B, Montgomery H, Napier D, Pagel C, Patel J, Antonia Puppim de Oliveira J, Redclift N, Rees H, Rogger D, Scott J, Stephenson J, Twigg J, Wolff J and Patterson C. 2009. Managing the health effects of climate change. *The Lancet* 373(9676), 1693–733.
- Council of Australian Governments. 2006. *National Action Plan on Mental Health 2006–2011*. Australian Government. Canberra.
- Council of Australian Governments. 2008. National Partnership Agreement on Remote Economic Participation. <http://www.fahcsia.gov.au/our-responsibilities/indigenous-australians/programs-services/jobs-money-business/national-partnership-agreement-on-indigenous-economic-participation>.
- Cuellar I. 1998. Cross-cultural Clinical Psychological Assessment of Hispanic Americans. *Journal of Personality Assessment* 70(1), 71–86.
- Dana R. 2001. Cultural Identity Assessment of Culturally Diverse Groups. *Journal of Personality Assessment* 70(1), 1–16.
- Daniel M, Brown A, Dhurrkay JG, Cargo M and O'Dea K. 2006. Mastery, perceived stress and health-related behaviour in northeast Arnhem land: a cross-sectional study. *International Journal for Equity in Health* 5, 10 pp. <http://www.equityhealthj.com/content/pdf/1475-9276-5-10.pdf>.
- Davies J, Campbell D, Campbell M, Douglas J, Hueneke H, LaFlamme M, Pearson D, Preuss K, Walker J and Walsh F. 2010. *Livelihoods inLand: promoting health and wellbeing outcomes from desert Aboriginal land management*. Desert Knowledge CRC Report Number 78. Ninti One Limited. Alice Springs.
- Devitt J, Hall G and Komla T. 2001. *An introduction to the social determinants of health in relation to the Northern Territory Indigenous population*. Occasional Paper Series 6. Cooperative Research Centre for Aboriginal and Tropical Health. Darwin.
- Dingwall K and Cairney S. 2011. Detecting psychological symptoms related to substance abuse among Indigenous Australians. *Drug & Alcohol Review* 30(1), 33–9.
- Dingwall K, Lewis M, Maruff P and Cairney S. 2010. Assessing cognition following petrol sniffing for Indigenous Australians. *Australian & New Zealand Journal of Psychiatry* 44(7), 631–39.
- Dingwall K, Maruff P and Cairney S. 2011a. Similar profile of cognitive impairment and recovery for Aboriginal Australians in treatment for episodic or chronic alcohol use. *Addiction* 106(8), 1419–26.
- Dingwall K, Maruff P, Fredrickson A and Cairney S. 2011b. Cognitive recovery during and after treatment for volatile solvent abuse. *Drug and Alcohol Dependence* 118(2–3), 180–185.
- Dockery AM and Milsom N. 2007. *A review of Indigenous employment programs, A National Vocational Education and Training Research and Evaluation Program Report*. NCVER. Adelaide.
- Dockery M. 2010. Culture and wellbeing: the case of Indigenous Australians. *Social Indicators Research* 99(2), 315–32.
- Dockery M. 2011. *Traditional Culture and the Wellbeing of Indigenous Australians: An analysis of the 2008 NATSISS*. CLMS Discussion Paper Series 2011/01. Centre for Labour Market Research, Curtin University. Perth.

- DoHAC (Department of Health and Aged Care). 2001. *Measuring Remoteness: Accessibility/Remoteness Index of Australia (ARIA)*. Revised Edition. Department of Health and Aged Care and the National Key Centre for Social Applications of Geographical Information Systems (GISCA) at the University of Adelaide. Adelaide.
- DSI Consulting and Benham. 2009. *An investigation of the effect of socio-economic factors on the Indigenous life expectancy gap*. DSI Consulting Pty Ltd. Canberra.
- Dunbar T and Scrimgeour M. 2006. Ethics in Indigenous Research – Connecting with Community. *Journal of Bioethical Inquiry* 3(3), 179–85.
- Dunbar T and Scrimgeour M. 2007. Chapter 7: Education. In *Social determinants of Indigenous health*. Eds. Carson B, Dunbar T, Chenhall R and Bailie R. pp. 135–52. Allen & Unwin. Darwin.
- Durie M. 2001. *Mauri Ora: The Dynamics of Maori Health*, Oxford University Press. Auckland. NZ.
- Durie M. 2006. *Measuring Maori Wellbeing*. Department of Treasury, Government of New Zealand. Wellington. http://www.treasury.govt.nz/publications/media-speeches/guestlectures/pdfs/tgls-durie.pdf/at_download/file.
- Educational Determinants of Aboriginal Health Group. 2004. *Relationships Between Indigenous People's Wellbeing and Education*. Educational Determinants of Aboriginal Health workshop of the Cooperative Research Centre for Aboriginal Health. Flinders University, June, 2004. Retrieved 31 Jan, from http://www.mindmatters.edu.au/resources_and_downloads/staff_matters/the_school_in_the_community/useful_information/school_relationships_between_indigenous_people.html#.
- Ewald D and Boughton B. 2002. *Maternal education: An exploratory investigation in a Central Australian Aboriginal community*. Occasional Paper Series Issue No. 7. Cooperative Research Centre for Aboriginal and Tropical Health. Darwin.
- Freemantle J, Officer K, McAullay D and Anderson I. 2007. *Australian Indigenous health – within an international context*. Cooperative Research Centre for Aboriginal Health. Darwin.
- Ganesharajah C. 2009. *Indigenous health and wellbeing: the importance of country*. Native Title Research Report, Report No. 1/2009. Australian Institute of Aboriginal and Torres Strait Islander Studies AIATSIS. Canberra.
- Garnett S and Sithole B. 2007. *Sustainable Northern Landscapes and the Nexus with Indigenous Health: Healthy Country Healthy People*. Australian Government Department of Land and Water. Canberra.
- Garvey D. 2008. *A review of the social and emotional wellbeing of Indigenous Australian peoples*. Australian Indigenous Health InfoNet. Perth. Retrieved 1st December, from http://www.healthinonet.ecu.edu.au/sewb_review.
- Garvey G, Cunningham J, Valery P, Condon J, Roder D, Ballie R, Martin J and Olver I. 2011. Reducing the burden of cancer of Aboriginal and Torres Strait Islander Australians: time for a coordinated, collaborative, priority-driven, Indigenous-led research program. *Medical Journal of Australia*. 194(10), 530–31.
- Gooda M. 2010. *Social justice and wellbeing*. Speech to AIATSIS Seminar Series 2010: Indigenous Wellbeing, Canberra, 28 June. http://www.hreoc.gov.au/about/media/speeches/social_justice/2010/20100628_wellbeing.html.
- Gracey M and King M. 2009. Indigenous health part 1: determinants and disease patterns. *The Lancet* 374(9683), 65–75. doi:10.1016/s0140-6736(09)60914-4.
- Gray A and Boughton B. 2001. *Education and health behaviour of Indigenous Australians: Evidence from the 1994 National Aboriginal and Torres Strait Islander Survey*. Occasional Paper Series Issue No. 3. Cooperative Research Centre for Aboriginal and Tropical Health. Darwin.
- Halchuk P. 2006. Measuring employment outcomes for Indigenous Australians. *Australian Journal of Labour Economics* 9(2), 201–15.
- Haswell MR, Kavanagh D, Tsey K, Reilly L, Cadet-James Y, Laliberte A, Wilson A and Doran C. 2010. Psychometric validation of the Growth and Empowerment Measure (GEM) applied with Indigenous Australians. *Australian & New Zealand Journal of Psychiatry* 44(9), 791–99.

- Henderson G, Robson C, Cox L, Dukes C, Tsey K and Haswell M. 2007. Chapter 8: Social and emotional wellbeing of Aboriginal and Torres Strait Islander people within the broad context of social determinants of health. In *Beyond Band-aids: exploring the underlying social determinants of Aboriginal health. Papers from the Social Determinants of Aboriginal Health Workshop, Adelaide, July 2004*. Eds. Anderson I, Baum F and Bentley M. pp. 136–64. Cooperative Research Centre for Aboriginal Health. Darwin.
- Hermeston W. 2005. Telling you our story: how apology and action relate to health and social problems in Aboriginal and Torres Strait Islander communities. *Medical Journal of Australia* 183(9), 479–81.
- HREOC (Human Rights and Equal Opportunity Commission). 2005. *Achieving Aboriginal and Torres Strait Islander health equality within a generation – A human rights based approach. Social Justice Report 2005*. Human Rights and Equal Opportunity Commission. Sydney.
- Hunter B and Jordan K. 2010. Explaining social exclusion: Towards social inclusion for Indigenous Australians. *Australian Journal of Social Issues* 45(2) 243–65.
- Hunter E. 2007. Disadvantage and discontent: A review of issues relevant to the mental health of rural and remote Indigenous Australians. *Australian Journal of Rural Health* 15(2) 88–93. doi:10.1111/j.1440-1584.2007.00869.x.
- Jenkins C, Chang A, Poulos L and Marks G. 2009. Asthma in Indigenous Australians: so much yet to do for Indigenous lung health. *Medical Journal of Australia* 190(10), 530–31.
- Johnson S, Abonyi S, Jeffery B, Hackett P, Hampton M, McIntosh T, Martz D, Muhajarine N, Petrucka P and Sari N. 2008. Recommendations for action on the social determinants of health: a Canadian perspective. *The Lancet* 372(9650), 1690–93. doi:10.1016/s0140-6736(08)61694-3.
- Jordan K, Bulloch H and Buchanan G. 2010. Statistical equality and cultural difference in Indigenous wellbeing frameworks: a new expression of an enduring debate. *Australian Journal of Social Issues* 45(3) 333–62.
- Kelly K, Dudgeon P, Gee G and Glaskin B. 2009. *Living on the edge: social and emotional wellbeing and risk and protective factors for serious psychological distress among Aboriginal and Torres Strait Islander people*. Australian Indigenous Psychologists Association and Cooperative Centre for Aboriginal Health. Darwin.
- Kendall E, Sunderland N, Barnett L, Nalder G and Matthews C. 2011. *Beyond the rhetoric of participatory research in Indigenous communities: Advances in Australia over the last decade. Qualitative Health Research* 21(12), 1719–1728.
- King M, Smith A and Gracey M. 2009. Indigenous health part 2: the underlying causes of the health gap. *The Lancet* 374(9683), 76–85. doi: 10.1016/s0140-6736(09)60827-8.
- Kowal E and Paradies Y. 2010. Enduring dilemmas of Indigenous health. *Medical Journal of Australia* 192(10), 599–600.
- Kowal P, Gibson R, Wutzke S, Smith R, Cotter P, Strivens E, Lindeman MA, LoGiudice D and Broe G. 2011. Roundtable discussion: data on ageing Aboriginal and Torres Strait Islander populations. *World Medical & Health Policy* 3(3), Article 7. 11 pp. doi:10.2202/1948-4682.1181.
- Krieg AS. 2006. Aboriginal incarceration: health and social impacts. *Medical Journal of Australia* 184(10), 534–536. <https://www.mja.com.au/journal/2006/184/10/aboriginal-incarceration-health-and-social-impacts>.
- Kyaw O. 1993. Mental Health Problems Among Aborigines. *Mental Health in Australia* 5(2), 30–36.
- Kylie Lee KS, Conigrave K, Patton G and Clough A. 2009. Cannabis use in remote Indigenous communities in Australia: endemic yet neglected. *Medical Journal of Australia* 190(5), 228–29.
- Lalonde C. 2006. Chapter 4: Identity formation and cultural resilience in Aboriginal communities. In *Promoting resilience in child welfare*. Eds. Flynn R, Dudding P and Barber J. pp. 52–71. University of Ottawa Press. Ottawa.
- Langton M, Parsons M, Leonard S, Auty K, Bell D, Burgess P, Edwards S, Howitt R, Jackson S, McGrath V and Morrison J. 2012. *National Climate Change Adaptation Research Plan: Indigenous Communities*. National Climate Change Adaptation Research Facility. Gold Coast.

- Laplagne P, Glover M and Shomos A. 2007. *Effects of health and education on labour force participation*. Staff Working Paper, Productivity Commission, Australian Government. Melbourne.
- Lee A, Leonard D, Moloney A and Minniecon L. 2009. Improving Aboriginal and Torres Strait Islander nutrition and health. *Medical Journal of Australia* 190(10), 547–48.
- Lindeman MA, Taylor KA and Reid JB. 2011. Changing the thinking about priorities in Indigenous health research. *Australian Journal of Rural Health* 19(5), 275.
- Lowell A, Maypilama E and Biritjalawuy D. 2003. *Indigenous health and education: exploring the connections*. Cooperative Research Centre for Aboriginal and Tropical Health. Darwin. –
- Lowry D and Moskos M. 2007. Chapter 6: Labour force participation as a determinant of Indigenous health. In *Beyond Band-aids: Exploring the underlying social determinants of Aboriginal health. Papers from the social determinants of Aboriginal health workshop. Adelaide. 2004*. Eds. Anderson I, Baum F and Bentley M. pp. 91–103. Cooperative Research Centre for Aboriginal Health. Darwin.
- Malin M. 2003. *Is schooling good for Aboriginal children's health?* Occasional Paper Series Issue 8. Cooperative Research Centre for Aboriginal & Tropical Health. Darwin.
- Malin M and Maidment K. 2003. Education, Indigenous survival and well-being: emerging ideas and programs. *The Australian Journal of Indigenous Education* 32, 85–100.
- Marmot M. 2005. Social determinants of health inequalities. *The Lancet*. 365, 1099–1104. http://www.who.int/social_determinants/strategy/en/Marmot-Social%20determinants%20of%20health%20inqualities.pdf.
- Marmot M. 2011. Social determinants and the health of Indigenous Australians. *Medical Journal of Australia* 194(10), 512–13.
- Marmot M, Friel S, Bell R, Houweling TAJ and Taylor S. 2008. Closing the gap in a generation: health equity through action on the social determinants of health. *The Lancet*. 372(9650), 1661–69. doi: 10.1016/s0140-6736(08)61690-6.
- May S. 1999. *Indigenous community-based education*. Short Run Press Ltd. Dublin.
- McDermott R, O’Dea K, Rowley K, Knight S and Burgess P. 1998. Beneficial impact of the Homelands Movement on health outcomes in central Australian Aborigines. *Australian and New Zealand Journal of Public Health* 22(6), 653–58.
- Measey M, Li S, Parker R and Wang Z. 2006. Suicide in the Northern Territory, 1981–2002. *Medical Journal of Australia* 182(6), 315–19.
- Mitchell J. 2007. Chapter 3: History. In *Social determinants of Indigenous health*. Eds. Carson B, Dunbar T, Chenhall R and Bailie R. pp. 41–64. Allen and Unwin. Darwin.
- Moffatt L. 2011. Mental illness or spiritual illness: what should we call it? *Medical Journal of Australia* 194(10), 541–42.
- Mooney G. 2003. Institutionalised Racism in Australian Public Services. *Indigenous Law Bulletin* 5(26), 10–12.
- Morrissey M, Pe-Pua R, Brown A and Latif A. 2007. Chapter 15: Culture as a determinant of Aboriginal health. In *Beyond Band-aids: exploring the underlying social determinants of Aboriginal health. Papers from the Social Determinants of Aboriginal Health Workshop, Adelaide, July 2004*. Eds. Anderson I, Baum F and Bentley M. pp. 239–54. Cooperative Research Centre for Aboriginal Health. Darwin.
- Morrissey M. 2003. The social determinants of Indigenous health: A research agenda. *Health Sociology Review* 12(1), 31–44.
- Munoz E, Powers JR, Nienhuys TG and Mathews JD. 1992. Social and environmental factors in 10 Aboriginal communities in the Northern Territory: relationship to hospital admissions of children. *Medical Journal of Australia* 156(8), 529–33.
- Mykota DB and Schwean VL. 2006. Moderator factors in First Nation students at risk for psychosocial problems. *Canadian Journal of School Psychology* 21(1–2), 4–17.

- O'Dea K. 2005. Preventable chronic diseases among Indigenous Australians: the need for a comprehensive national approach. *Heart, Lung and Circulation* 14(3), 167–71. doi:10.1016/j.hlc.2005.06.004.
- Paradies Y, Harris R and Anderson I. 2008. *The impact of racism on Indigenous health in Australia and Aotearoa: Towards a research agenda*. Cooperative Research Centre for Aboriginal Health and Flinders University. Darwin.
- Pholi K, Black D and Richards C. 2009. Is 'Close the Gap' a useful approach to improving the health and wellbeing of Indigenous Australians? *Australian Review of Public Affairs* 9(2), 1–13.
- Prout S. 2011. Indigenous Wellbeing Frameworks in Australia and the Quest for Quantification. *Social Indicators Research* 109(2), 1–20. doi:10.1007/s11205-011-9905-7.
- Purdie N. 2003. Self-Identity and Positive Outcomes of Schooling for Indigenous Australian Students. *New Zealand Association for Research in Education (ZARE) AARE Conference*. November. Auckland, New Zealand. <http://www.aare.edu.au/03pap/pur03796.pdf>.
- Purdie N, Dudgeon P and Walker R. 2010. *Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice*. Kulunga Research Network. West Perth.
- Reading CL and Wien F. 2009. *Health inequalities and social determinants of Aboriginal peoples' health*. National Collaborating Centre for Aboriginal Health. Prince George. Canada.
- Reid JB and Taylor KA. 2011. Indigenous Mind: a framework for culturally safe Indigenous health research and practice. *Aboriginal and Islander Health Worker Journal* 35(4), 19–21.
- Resnick M. 2000. Resilience and Protective Factors in the Lives of Adolescents. *Journal of Adolescent Health* 27(1), 1–2.
- Rose D. 1992. *Dingo Makes us Human: Life and Land in an Aboriginal Australian Culture*. Cambridge University Press. Victoria.
- Rowley KG, O'Dea K, Anderson I, McDermott R, Saraswati K, Tilmouth R, Roberts I, Fitz J, Wang Z, Jenkins A, Best JD, Wang Z and Brown A. 2008. Lower than expected morbidity and mortality for an Australian Aboriginal population: 10-year follow-up in a decentralised community. *Medical Journal of Australia* 188(5), 283–87.
- Russell-Smith J, Whitehead P and Cooke P. 2009. *Culture, Ecology and Economy of Fire Management in North Australian Savannas: Rekindling the Wurrk Tradition*. CSIRO Publishing. Collingwood.
- Saggers S and Gray D. 2007. Chapter 1: Defining what we mean. In *Social determinants of Indigenous health*. Eds. Carson B, Dunbar T, Chenhall R and Bailie R. pp. 1–20. Allen & Unwin. Darwin.
- SCRGSP (Steering Committee for the Review of Government Service Provision). 2009. *Overcoming Indigenous Disadvantage: Key Indicators 2009*. Productivity Commission, Canberra.
- SCRGSP (Steering Committee for the Review of Government Service Provision). 2011. *Overcoming Indigenous Disadvantage: Key Indicators 2011*. Productivity Commission, Canberra.
- Scrimgeour D. 2007. Town or country: which is best for Australia's Indigenous peoples? *Medical Journal of Australia* 186(10), 532–33.
- SHRG (Social Health Reference Group for National Aboriginal and Torres Strait Islander Health Council and National Mental Health Working Group). 2004. *Social and Emotional Well Being Framework – a National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Well Being 2004–2009*, Department of Health and Ageing. [http://www.health.gov.au/internet/main/publishing.nsf/Content/92AF7C8787AC1C8DCA257B0F0076499C/\\$File/frame04.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/92AF7C8787AC1C8DCA257B0F0076499C/$File/frame04.pdf).
- Siciliano F, Stevens M, Condon J and Bailie R. 2006. *A longitudinal data resource on key influences on health in the Northern Territory: Opportunities and obstacles*. CRCAH Discussion Paper Series: No. 1. Cooperative Research Centre for Aboriginal Health. Darwin.
- Smylie J, Anderson I, Ratima M, Crengle S and Anderson M. 2006. Indigenous health performance measurement systems in Canada, Australia, and New Zealand. *The Lancet* 367(9527), 2029–31. doi:10.1016/s0140-6736(06)68893-4.

- Stephens C, Porter J, Nettleton C and Willis R. 2006. Disappearing, displaced, and undervalued: a call to action for Indigenous health worldwide. *The Lancet* 367(9527), 2019–28. doi:10.1016/s0140-6736(06)68892-2.
- Swan P and Raphael B. 1995. *Ways Forward: National Consultancy Report on Aboriginal and Torres Strait Islander Mental Health*. Australian Government Publishing Service. Canberra.
- Tait P. 2011. How can Australia do better for Indigenous health? *Medical Journal of Australia* 194(10), 501–02.
- Tatz C. 2001. *Aboriginal Suicide is different: A Portrait of Life and Self-destruction*. Aboriginal Studies Press. Canberra.
- Taylor J. 2006. *Indigenous Peoples and Indicators of Well-Being: An Australian Perspective on UNPFII Global Frameworks*. Centre for Aboriginal Economic Policy Research Working Paper No. 33/2006. Australian National University. Canberra.
- Taylor J. 2008. Indigenous peoples and indicators of well-being: Australian perspectives on United Nations global frameworks. *Social Indicators Research* 87(1), 111–26. doi:10.1007/s11205-007-9161-z.
- Taylor K, Smith J, Dimer L, Ali M, Wilson N, Thomas T and Thompson S. 2010. Letters to the Editor: You're always hearing about the stats ... death happens so often: new perspectives on barriers to Aboriginal participation in cardiac rehabilitation. *Medical Journal of Australia* 192(10), 602.
- Tedmanson D and Guerin P. 2011. Enterprising social wellbeing: social entrepreneurial and strengths based approaches to mental health and wellbeing in 'remote' Indigenous community contexts. *Australian Psychiatry* 19(1), S31–S33.
- Thomas A, Cairney S, Gunthorpe W, Paradies Y and Sayers S. 2010. Strong Souls: development and validation of a culturally appropriate tool for assessment of social and emotional well-being in Indigenous youth. *The Royal Australian and New Zealand College of Psychiatrists* 44(1), 40–48.
- Thompson S. 2010. *Aboriginal Perspectives on Physical Activity in Remote Communities: Meanings and Ways Forward*. Menzies School of Health Research. Darwin.
- Thomson N, MacRae A, Brankovich J, Burns J, Catto M, Gray C, Levitan L, Maling C, Potter C, Ride K, Stumpers S and Urquhart B. 2011. *Overview of Australian Indigenous health status, 2011*. Australian Indigenous HealthInfoNet. Edith Cowan University. Perth. Retrieved 13 February from http://www.healthinonet.ecu.edu.au/overview_2012.pdf.
- Tsey K. 2000. Evaluating Aboriginal empowerment programs – the case of Family WellBeing. *Australian & New Zealand Journal of Public Health* 24(5), 509–14.
- Tsey K, Haswell-Elkins M, Whiteside M, McCalman J, Cadet-James Y and Wenitong M. 2007. Empowerment-based research methods: a 10-year approach to enhancing Indigenous social and emotional wellbeing. *Australasian Psychiatry* 15(Supp 1), S34–38.
- Tsey K, Whiteside M, Haswell-Elkins M, Bainbridge R, Cadet-James Y and Wilson A. 2010. Empowerment and Indigenous Australian health: a synthesis of findings from Family Wellbeing formative research. *Health & Social Care in the Community* 18(2), 169–79.
- UN General Assembly. 1948. *Universal Declaration of Human Rights*. United Nations General Assembly. Retrieved 28 October, from <http://www.unhcr.org/refworld/docid/3ae6b3712c.html>.
- Ungar M. 2004. Constructionist Discourse on Resilience: Multiple Contexts, Multiple Realities among At-Risk Children and Youth. *Youth & Society* 35(3), 341–65.
- United Nations Permanent Forum on Indigenous Issues. 2005a. Engaging the marginalized: Partnerships between indigenous peoples, governments and civil society. Guidelines for engagement with indigenous peoples. *United Nations Workshop: International Conference on Engaging Communities*. 15 August. Brisbane.
- United Nations Permanent Forum on Indigenous Issues. 2005b. *United Nations Permanent Forum on Indigenous Issues, Fourth Session*. UN Document E/C.19/2005/2, Annex III, Item 13.

- Urquhart B. 2009. *Summary of selected social indicators*. Australian Indigenous HealthInfoNet. Retrieved 9 February, from <http://www.healthinfonet.ecu.edu.au/determinants/social-issues/reviews/selected-social-indicators>.
- Vicary D and Andrews H. 2000. Developing a Culturally Appropriate Therapeutic Approach with Indigenous Australians. *Australian Psychology* 35(3), 181–85.
- Vicary D and Westerman T. 2004. ‘That’s just the way he is’: Some implications of Aboriginal mental health beliefs. *Australian e-Journal for the Advancement of Mental Health* 3(3) 10 pp. <http://www.gtp.com.au/ips/inewsfiles/P22.pdf>.
- Vos T, Barker B, Begg S, Stanley L and Lopez AD. 2009. Burden of disease and injury in Aboriginal and Torres Strait Islander peoples: the Indigenous health gap. *International Journal of Epidemiology* 32(2), 470–77.
- Wakerman J, Humphreys J, Wells R, Kuipers P, Entwistle P and Jones J. 2008. Primary health care delivery models in rural and remote Australia – a systematic review. *BMC Health Services Research* 8(276), 10 pp. <http://www.biomedcentral.com/content/pdf/1472-6963-8-276.pdf>.
- Walter M and Mooney G. 2007. Chapter 8: Employment and welfare. In *Social determinants of Indigenous health*. Eds. Carson B, Dunbar T, Chenhall R and Bailie R. pp. 153–176. Allen & Unwin. Darwin.
- West S and Langworthy A. 2007. *Community Indicators Victoria: A Tool for Council Planning*. PowerPoint Presentation to LGAs. The McCaughey Centre and Centre for Regional Development, Swinburne University of Technology. Melbourne.
- Westerman T. 2000. *The Westerman Aboriginal Symptoms Checklist – Youth: Manual*. Indigenous Psychology Services. Perth.
- Westerman T. 2003. ‘Development of an inventory to assess the moderating effects of cultural resilience with Aboriginal youth at risk of depression, anxiety, and suicidal behaviours’. PhD Thesis. School of Psychology. Curtin University. Perth.
- Westerman T. 2004. Engagement of Indigenous Clients in Mental Health Services: what role do cultural differences play? *Advances in Mental Health* 3(3), 88–93.
- Whiteside M, Tsey K, McCalman J, Cadet-James Y and Wilson A. 2006. Empowerment as a Framework for Indigenous Workforce Development and Organisational Change. *Australian Social Work* 59(4), 422–34.
- Wilkinson RG and Marmot M. 2003. *Social determinants of health: The Solid Facts*. 2nd edition. World Health Organization. Denmark.
- Wiseman J, Heine W, Langworthy A, McLean N, Pyke J, Raysmith H and Salvaris M. 2006. *Developing a Community Indicators Framework for Victoria: The final report of the Victorian Community Indicators Project (VCIP)*. Institute of Community Engagement and Policy Alternatives (ICEPA), Victoria University, the VicHealth Centre for the Promotion of Mental Health and Social Well Being, School of Population Health, University of Melbourne and the Centre for Regional Development, Swinburne University of Technology. Melbourne.
- World Health Organization. 1986. *The Ottawa Charter for Health Promotion*. First International Conference on Health Promotion, Ottawa, 21 November 1986. World Health Organization. Geneva.
- World Health Organization. 2008. *Closing the gap in a generation: Health equity through action on the social determinants of health*. World Health Organization. Geneva.
- World Health Organization. 2011. *Closing the gap : policy into practice on social determinants of health: discussion paper*. World Health Organization. Brazil.
- Yu P. 2011. The power of data in Aboriginal hands. *Social Science Perspectives on the 2008 National Aboriginal and Torres Strait Islander Social Survey*. 11–12 April. Australian National University. Canberra.
- Zhao Y, Connors C, Wright J, Guthridge S and Bailie R. 2008. Estimating chronic disease prevalence among the remote Aboriginal population of the Northern Territory using multiple data sources. *Australian and New Zealand Journal of Public Health* 32(4) 307–13. doi:10.1111/j.1753-6405.2008.00245.x.

- Zubrick SR, Dudgeon P, Graham G, Glaskin B, Kelly K, Paradies Y, Scrine C and Walker R. 2010. *Social determinants of Aboriginal and Torres Strait Islander social and emotional wellbeing*. Retrieved 2 December 2012, from <http://www.aboriginal.childhealthresearch.org.au/media/54874/chapter6.pdf>.
- Zubrick SR and Robson A. 2003. *Research Agenda: Resilience to Reoffending in High Risk Group – Focus on Aboriginal Youth*. Criminology Research Council. Western Australia.
- Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A and Li J. 2005a. *The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People*. Curtin University of Technology and Telethon Institute for Child Health Research. Perth.
- Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, De Maio JA, Cox A and Li J. 2005b. The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People. Vol 2, Chapter 8: *Improving the social and emotional wellbeing of Aboriginal children and young people*. pp. 547–580. Curtin University of Technology and Telethon Institute for Child Health Research. Perth. http://aboriginal.childhealthresearch.org.au/media/394825/western_australian_aboriginal_child_health_survey_ch8.pdf.
- Zubrick SR, Silburn SR, De Maio JA, Shepherd C, Griffin JA, Dalby RB, Mitrou FG, Lawrence DM, Hayward C, Pearson G, Milroy H, Milroy J and Cox A. 2006a. The Western Australian Aboriginal Child Health Survey: Improving the Educational Experiences of Aboriginal Children and Young People. Vol 3, Chapter 2: *Educating Aboriginal children – Issues, policy and history*. pp. 33–62. Curtin University of Technology and Telethon Institute for Child Health Research. Perth. http://aboriginal.childhealthresearch.org.au/media/395500/western_australian_aboriginal_child_health_survey_ch2.pdf.
- Zubrick SR, Silburn SR, De Maio JA, Shepherd C, Griffin JA, Dalby RB, Mitrou FG, Lawrence DM, Hayward C, Pearson G, Milroy H, Milroy J and Cox A. 2006b. The Western Australian Aboriginal Child Health Survey: Improving the Educational Experiences of Aboriginal Children and Young People. Vol 3, Chapter 9: *Education, health and wellbeing*. pp. 495–520. Curtin University of Technology and Telethon Institute for Child Health Research. Perth. http://aboriginal.childhealthresearch.org.au/media/395524/western_australian_aboriginal_child_health_survey_ch9.pdf.

PARTNERS IN THE CRC FOR REMOTE ECONOMIC PARTICIPATION

Principal Partners



Project Partners

