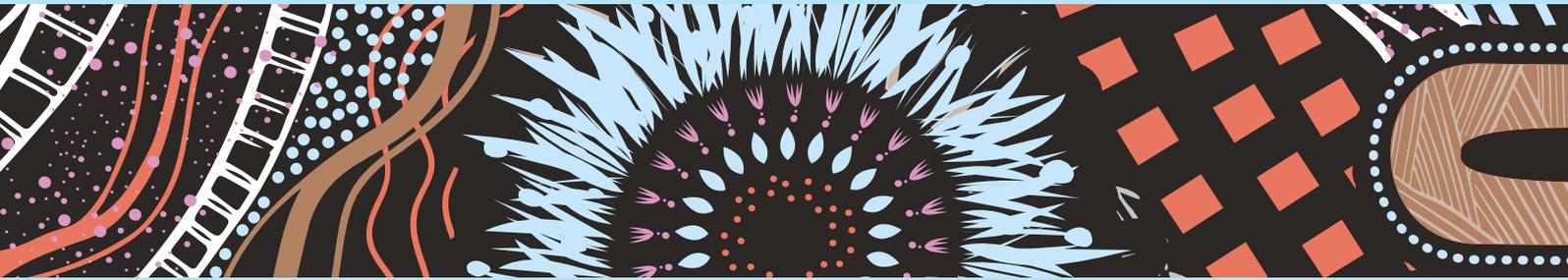




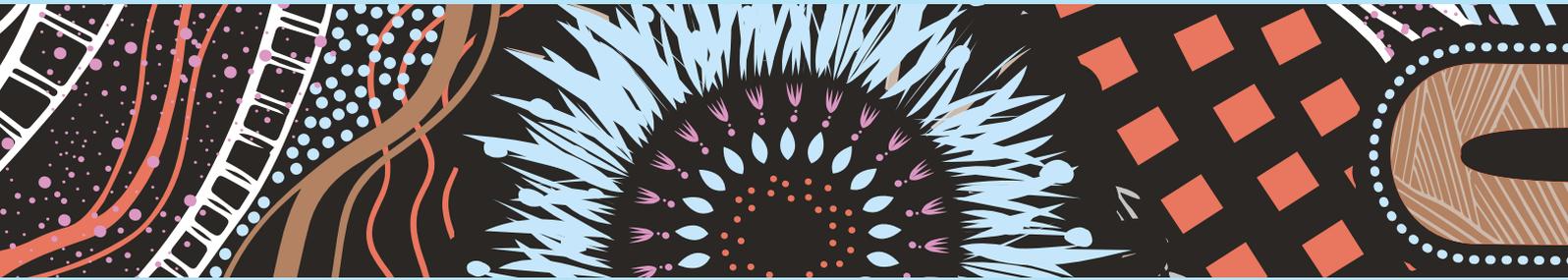
**Australian Government**  
**Australian Institute of  
Health and Welfare**



# **Physical activity and the social and emotional wellbeing of First Nations people**

Rona Macniven, Xhana Tishler, Grace McKeon, Jonathan Bullen and Brett Biles





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The AIHW is an independent statutory Australian Government agency producing authoritative and accessible information and statistics to inform and support better policy and service delivery decisions, leading to better health and wellbeing for all Australians.

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Australian Institute of Health and Welfare

GPO Box 570

Canberra ACT 2601

Tel: (02) 6244 1000

Email: [info@aihw.gov.au](mailto:info@aihw.gov.au)

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**Caution: Some people may find the content in this report confronting or distressing.**

Please carefully consider your needs when reading the following information about Indigenous mental health and suicide prevention. If you are looking for help or crisis support, please contact:

**13YARN (13 92 76), Lifeline (13 11 14) or Beyond Blue (1300 22 4636).**

The AIHW acknowledges the Aboriginal and Torres Strait Islander individuals, families and communities that are affected by suicide each year. If you or your community has been affected by suicide and need support, please contact Thirrili's **Postvention Suicide Support service** on **1800 805 801**.

The AIHW supports the use of the [Mindframe guidelines](#) on responsible, accurate and safe suicide and self-harm reporting. Please consider these guidelines when reporting on these topics.



# Summary

## What we know

- Social and Emotional Wellbeing (SEWB) for First Nations people is a complex concept — one which incorporates the influence on health of connection to land, culture, spirituality, family and community.
- Physical activity is embedded in First Nations traditional practices, customary activities and connection with Country, and still holds cultural relevance today.
- World Health Organization (WHO) guidelines advise that any form of physical activity is more beneficial than none, and that enhanced physical activity levels improve health outcomes.
- Physical activity levels among First Nations children are much higher than those of non-Indigenous children and are also higher than those of First Nations adults.
- First Nations adults are less likely than non-Indigenous Australians to participate in regular physical activity, and fewer First Nations adults undertake enough physical activity to gain health benefits.
- Engaging in physical activity as part of a group — especially with family and friends — is an important incentive for First Nations people to participate in physical activity.
- Throughout Australia there are over 100 physical activity programs and approaches for First Nations people that focus on participation, sport and chronic disease prevention and management.
- Physical activity programs can improve SEWB, specifically by improving self-confidence, self-esteem, wellbeing, pride and stress reduction for First Nations people of all ages.
- For young people, there is evidence of increased connection to culture, self-esteem and confidence.

## What works

- Culturally safe physical activity programs that are community-led and adopt First Nations values act as key facilitators of engagement in programs.
- Enhancing cultural identity through engagement in physical activity that has a cultural focus, and that fosters connections with family and kinship, enriches SEWB outcomes.
- Other facilitators of physical activity participation include support from family and friends, and opportunities to connect with community or culture.
- First Nations community involvement increases program effectiveness, relevance and sustainability.



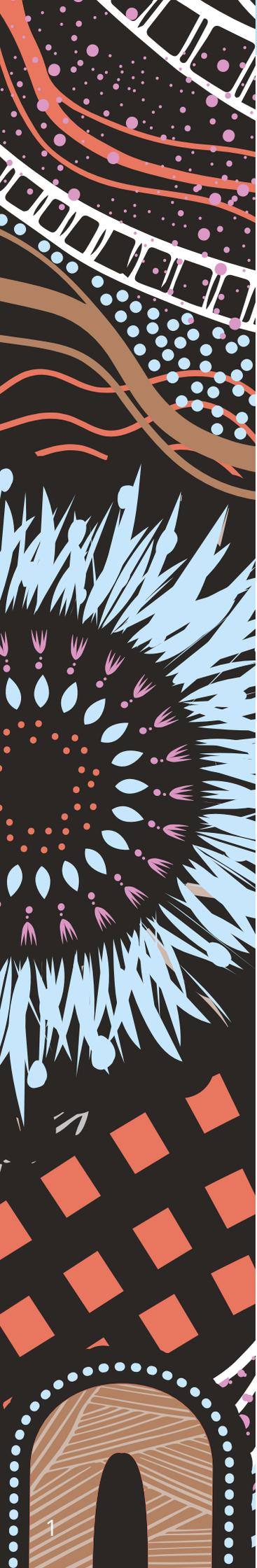
## What doesn't work

- Programs that do not centre First Nations ways of knowing, being and doing are unlikely to be well received or effective. Generally, these programs have barriers that impede program participation and subsequently hinder potential improvements in SEWB.
- These barriers include insufficient transportation, time inefficiency, high program costs, and conflicting family and community commitments.
- Racism can act as a deterrent for First Nations people to participate in available programs, services and initiatives that enhance SEWB.

## What we don't know

- Across all ages, there is limited evidence from studies with First Nations people about the connections between physical activity and SEWB.
- It is unclear whether physical activity participation directly improves SEWB, or vice versa — or whether the relationship is more complex.
- Of the many existing physical activity programs, only a small number have been evaluated, and so many program outcomes are unknown.
- While there are several national and state level policy documents that are relevant to First Nations physical activity and SEWB, their coordinated implementation and evaluation has been limited. As a result, their impact on physical activity levels and SEWB is unknown.





# 1



## Introduction



# 1 Introduction

Social and emotional wellbeing (SEWB) is a term used by many First Nations people to reflect a more holistic view of mental health. SEWB is defined by the AIHW Indigenous Mental Health & Suicide Prevention Clearinghouse as being the foundation of physical and mental health for First Nations peoples. It is a collectivist approach to a person's self-concept where the self is inseparable from, and embedded within, family and community (Gee et al. 2014).

First Nations adults experience high or very high levels of psychological distress, with 24% having been diagnosed with a mental health or behavioural condition (AIHW 2022a). These figures reflect the lasting consequences of historical injustices, racial discrimination and cultural fragmentation, which have intergenerational effects, resulting in social inequalities and a deterioration in the overall wellbeing of First Nations people (Darwin et al. 2023).

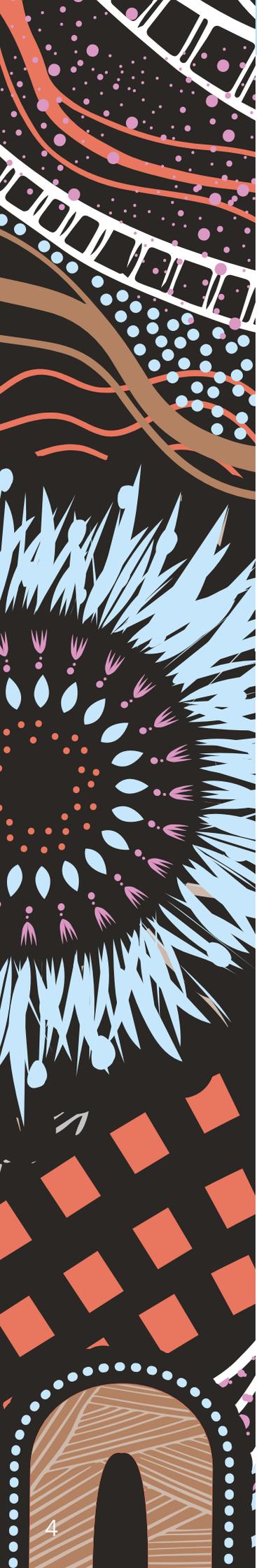
Physical activity (including hunting, gathering, customary activities and connecting with Country) has been a feature of First Nations people's traditional lifestyles for tens of thousands of years and still holds cultural relevance today (Gray et al. 2013). Being on Country also has benefits for the physical, social, emotional and cultural wellbeing of First Nations people, including a healthier diet; more frequent exercise; greater transmission of culture; increased family-time; and enhanced spiritual connectedness (David et al. 2018). Collecting traditional foods is a culturally inclusive activity that is self-initiated and commonly performed On-Country, and can also have health benefits (David et al. 2018).

Physical activity is critical for good mental health and wellbeing, and for preventing and reducing symptoms of anxiety and depression as outlined by the World Health Organization (Bull et al. 2020). Evidence from studies worldwide, predominantly with non-Indigenous populations, has found that physical activity protects against poor mental health and chronic diseases such as cardiovascular disease, diabetes and obesity (Bull et al. 2020). There are numerous health benefits of regular participation in physical activity for children and adults, including cardiorespiratory and muscle fitness.

Through the National Aboriginal and Torres Strait Islander Health Survey, the Australian Bureau of Statistics (ABS) has regularly collected and published data on physical activity levels (although the most recent data for First Nations children were collected in 2012–2013). Notably, physical activity levels among First Nations children have been much higher than those of non-Indigenous children and also higher when compared to those of First Nations adults (ABS 2014a). Only 12% of First Nations adults in non-remote areas undertake enough physical activity for health benefits (ABS 2019) and First Nations adults are less likely to participate in regular physical activity than non-Indigenous adults (ABS 2014a). The reasons for this are complex and, from childhood to adulthood, it appears there may be a greater decline in physical activity among First Nations people in Australia than among non-Indigenous people. Given the intricate interconnections between physical activity, sport, and First Nations culture (Gray 2013), there should be a significant potential for increased physical activity participation to lead to enhancements in First Nations SEWB.



This article summarises existing evidence on the relationship between physical activity and First Nations SEWB. It describes the policy context and actions, as well as program approaches implemented with First Nations adults and children in Australia. It takes the form of a scoping review of academic research and grey literature, including governmental reports and policy documents. The article focuses on the strengths of First Nations people’s experiences and knowledge (Bryant et al. 2021) and concludes with a summary of the key messages from this report that are essential for understanding First Nations physical activity participation and SEWB.



# 2



## Background



## 2 Background

Given that SEWB (rather than 'mental health') is the term used by First Nations people, SEWB will be the term used in this article. This background section will define SEWB and explain why SEWB is the preferred term for First nations people. It will describe the determinants of health and their relationship to SEWB and physical activity and the facilitators and barriers that influence physical activity participation.

### Social and emotional wellbeing (SEWB)

SEWB is a complex concept that takes into consideration the influence of connection to land, culture, spirituality, family and community on health (Garvey et al. 2021). *The National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017–2023* developed a model that outlines the seven domains of SEWB for First Nations peoples (Gee et al. 2014):

1. Connection to body (encompassing physical health and wellbeing; feeling strong and healthy; and able to physically participate as fully as possible in life).
2. Connection to mind and emotions (which covers 'mental wellbeing': the whole spectrum of cognitive, emotional and psychological experience fundamental to an individual's experience of mental wellbeing).
3. Connection to family and kinship (complex and diverse connections that are central to the functioning of First Nations societies). This domain recognises the importance of strong family and group relations, and of kinship attachment systems.
4. Connection to community (essential for cultural identity and the concept of self, connections to community provide opportunities for individuals and families to connect with each other, and are a source of support and resilience).
5. Connection to culture (which helps to provide a sense of continuity with the past, and to maintain a strong identity, by participating in practices associated with First Nations heritage).
6. Connection to Country (an area for which Indigenous people have a traditional or spiritual association, with the sense of connection being a deep experience, belief or feeling of belonging).
7. Connection to spirituality and ancestors (providing 'a sense of purpose and meaning', this refers to a cultural group's 'traditional systems of knowledge left by the ancestral beings').

Disruption to these domains will lead to poor SEWB, while strengthening connections to these domains can lead to enhanced SEWB (Gee et al. 2014).

## The National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017–2023



The Framework acknowledges the importance of prioritising First Nations SEWB (Commonwealth of Australia 2017), and addressing the direct and indirect social determinants of health. Implementation involves joint efforts between government agencies, First Nations communities, healthcare services and researchers. Implementation strategies include policy development and commitment; engagement of First Nations people; data collection and analysis; targeted interventions; and evidence-based programs.

The term 'mental health' is how people think, feel, cope and participate in everyday life (WHO 2013). The terms 'mental health' and 'mental illness' are generally seen as medical terms, focusing on problems from a biomedical perspective and not from a holistic view of health for First Nations people (Gee et al. 2014). Most First Nations people prefer the term 'SEWB' because it aligns with the holistic view of health (Commonwealth of Australia 2017), and because mental health and mental illness are only part of a person's SEWB (Gee et al. 2014).

To date, SEWB has been measured in different ways, including the use of specific constructs like 'self-esteem', 'resilience' and 'psychological distress'. There is an ongoing need to develop psychometrically sound, comprehensive, culturally appropriate measures to understand First Nations SEWB at a population health, program evaluation, and clinical level (Newton et al. 2015). However, it is likely that a range of measures will be required to ensure that SEWB can be accurately measured with relevance to context and place.

## Determinants of health and SEWB

Social determinants of health are the social and environmental conditions in which people are born, grow, live, work, and age, and include early child development; education and skills development; employment and working conditions; minimum income for healthy living; sustainable communities; and a 'social-determinants' approach to prevention (Marmot 2011). The key determinants influencing First Nations SEWB extend beyond this to include cultural determinants of health (Verbunt et al. 2021). These determinants are highly complex and interconnected, influencing one another in a multifaceted way. When adopting a holistic approach to addressing SEWB outcomes, it is therefore vital to consider all possible determinants together.

Analysis of ABS health survey data estimated that 34% of the health gap between First Nations people and non-Indigenous people was due to social determinants impacting communities (AIHW 2022b). Embracing a proactive approach that incorporates these issues enables the design of programs and policies that are more likely to be successful. This includes ensuring affordability; culturally sensitive support services; and equipping participants with skills to achieve behaviour change.

## Sociocultural factors

It is imperative to consider the sociocultural factors that impact SEWB. Across all aspects of life, First Nations people have been subject to continuous historical injustices, involving high levels of racism, social inequalities, cultural fragmentation and discrimination. Consequently, the intergenerational trauma resulting from the Stolen Generations has had detrimental effects on wellbeing (Darwin et al. 2023).

Experiences of racism impact First Nations peoples' level of engagement, trust and access to mainstream mental health services (Heard et al. 2022). Racism and discrimination experienced by First Nations people is associated with aspects of poor physical and mental health that may impact on SEWB — including anxiety, depression, increased body mass index, smoking, psychological distress, and poor sleeping patterns (Kairuz et al. 2021). Moreover, apprehension about facing discrimination can act as a deterrent for First Nations people to access the available programs, services and initiatives aimed at enhancing SEWB. Conversely, enhancing cultural identity through engagement in cultural activities, and fostering connections with family and kinship, serve as protective factors, enriching SEWB outcomes.

## Socioeconomic and education factors

First Nations people encounter significant socioeconomic disadvantage, across a variety of measures (AIHW 2020). For example, between 2007–2008 and 2018–2019 the overall employment rates of First Nations people decreased from 54% to 49%, while the employment rate of non-Indigenous Australians remained at approximately 76% (AIHW 2021) over the same period. Furthermore, the employment rate of First Nations people tends to decrease with increasing remoteness, ranging from 59% in *Major cities* to 35% in *Very remote* areas (AIHW 2021). People experiencing socioeconomic disadvantage may have less control over their lives, which is associated with higher levels of stress and which enhances the risk of poor mental health.



First Nations people may also have low levels of educational attainment and literacy. While there was an increase between 2008 and 2018–19 from 45% to 66% in the attainment of a Year 12 or equivalent qualification for First Nations people aged 20–24, there remains a distinctive gap when compared with non-Indigenous people (AIHW 2022b). Low education levels may limit employment opportunities and negatively impact overall wellbeing, due to increased stress and worry regarding financial status. This highlights the complex interplay of the determinants of health and why they must be addressed concurrently.

## Environmental and geographic factors

‘Environmental health’ is the physical, chemical and biological factors that impact First Nations people’s health within their homes and communities (Steering Committee for the Review of Government Service Provision 2020). Approximately 38% of First Nations people live in Major cities, 44% in Inner and Outer regional areas, and 17% in Remote and Very remote areas (ABS 2014b). Geographical location significantly influences both physical and mental health, stemming from factors such as variations in service accessibility; limited program availability; and underlying social determinants including poverty, crowded housing, and limited employment opportunities (Nolan-Isles et al. 2021) and the impacts of climate change (Lansbury et al. 2022). Moreover, there is restricted availability of medical services, and access to mental health services and programs focused on SEWB is severely limited. For First Nations people, a holistic approach to SEWB means that environmental and geographical factors can be supportive of SEWB for First Nations people living on Country (Weir et al. 2011). Therefore, addressing this issue is critical to the success of strategies to enhance SEWB outcomes.

## Aboriginal Community Controlled Health Services and workforce

First Nations community involvement has been shown to increase a program’s effectiveness, relevance and sustainability. First Nations programs are dependent on the implementation of these key requirements to ensure culturally safe and responsive health care. The *National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework and Implementation Plan 2021–2031* shares a vision with the *National Aboriginal and Torres Strait Islander Health Plan 2013–2023*: to guide service delivery so that First Nations people will ‘enjoy long, healthy lives that are centred in culture, with access to services that are prevention-focused, responsive, culturally safe, and free of racism and inequity’ (DHAC 2021a:9). The Plan’s target is for First Nations people to be fully represented in the health workforce by 2031 and it includes actions to attract, recruit and retain workers across all roles, levels and locations within the health sector.

Capacity building facilitated by Aboriginal Community Controlled Health Services (ACCHS) is key to ensuring the sustainability of health initiatives. This requires the involvement of community members in the early stages of program development, to ensure their investment in its design. ACCHS are an important mechanism for addressing the barriers that limit access to health services and programs. The goals of ACCHS are to deliver holistic and culturally appropriate health services by enabling whole-of-community self-determination and individual spiritual, cultural, physical, social and emotional wellbeing, so that First Nations people can enjoy a good quality of life (Pearson et al. 2020). In addition to growing the capacity of the First Nations workforce, culturally safe practices within non-Indigenous health services, and cultural safety in the non-Indigenous workforce, are also vital.

## Physical activity guidelines

'Physical activity' is defined as any form of bodily movement that involves the use of skeletal muscles, requiring energy expenditure (Bull et al. 2020).

Subsets of physical activity include:

- exercise that is planned, structured, and repetitive with a final or an intermediate objective to improve or maintain physical fitness (Caspersen et al. 1985)
- sport (defined as physical exertion, skill and/or hand-eye coordination as the focus of the activity, with elements of formal competition and rules, that can be participated in either individually or as a team) (WHO 2019).

As well, incidental physical activity is accrued through activities of daily living. For First Nations people, cultural activities including hunting, gathering, customary activities and connecting with Country may be considered incidental physical activity.

The World Health Organization's most recent recommendations update the 2010 Physical Activity Guidelines, proposing that all adults should participate weekly in 150 to 300 minutes of moderate-intensity physical activity (or equivalently, 75 to 150 minutes of vigorous-intensity activity) (Bull et al. 2020). Sixty minutes of moderate-vigorous aerobic physical activity daily for both children and adolescents is suggested, as is regular muscle-strengthening activity for all age groups (Bull et al. 2020). In a broader context, these guidelines strongly suggest that any form of physical activity is more beneficial than none, and that enhanced physical activity levels elevate health outcomes. These international guidelines are consistent with the physical activity and exercise guidelines for all Australians (Department of Health 2019). While there are no formal guidelines for people with disability and chronic conditions, being active is important for everyone.

## Evidence of the relationship between First Nations physical activity and physical health

Systematic reviews have summarised the effects of physical activity on physical health outcomes, with positive outcomes including weight, BMI and waist circumference reduction and improved biomarkers such as insulin, cholesterol, glucose, triglycerides and reduced blood pressure (Pressick et al. 2016; Sushames et al. 2016). There is also evidence that physical activity, and smoking and alcohol-related health behaviours, may group together among First Nations adults (Noble et al. 2014).

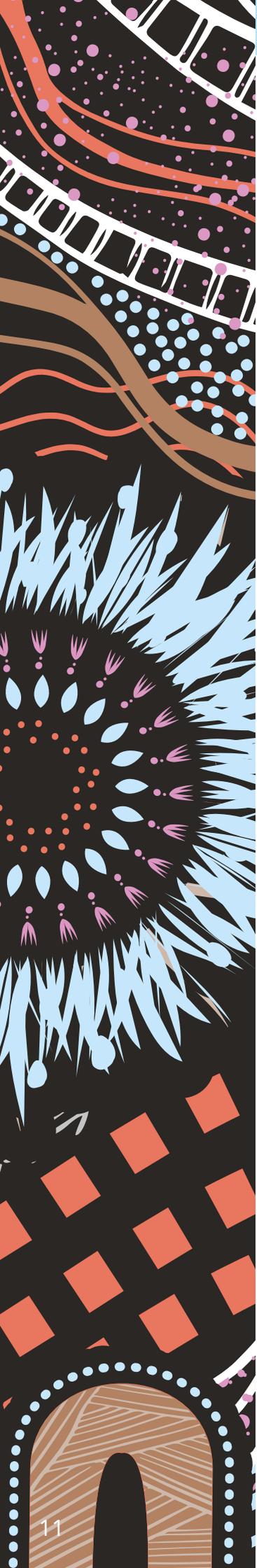
## Evidence of the relationship between First Nations physical activity and SEWB

In population-level studies specific to First Nations people, there is limited evidence about the relationship between physical activity and SEWB, although there is some evidence of relationships between physical activity and aspects of mental health. There is cross-sectional evidence of an association between low physical activity levels and incidence of depression in Torres Strait Islander adults (Taylor et al. 2017). There is also evidence of a relationship between high wellbeing among the First Nations parents of children aged 0–5 years and those children having higher physical activity levels at age 9–13 years (Macniven et al. 2022). While the ABS collects data on First Nations physical



activity and aspects of SEWB, such as psychological distress, it is unclear whether this data can be linked, in order to improve our understanding of the relationships between physical activity and SEWB at the national level.

Several different reviews have summarised the evidence of SEWB outcomes arising from physical activity and sport program participation. A systematic review of the impact of physical activity programs on First Nations people of all ages found evidence that physical activity programs improve SEWB, specifically self-confidence, self-esteem, wellbeing and pride, and reduced stress (Macniven et al. 2019). Another review of the impact of physical activity programs on First Nations young people's mental health and SEWB found evidence of increased connection to culture, self-esteem, and confidence (English et al. 2021).



# 3



## Methods

### 3 Methods

The methodology of this study used a strengths-based lens, specifically through resilience, social–ecological and sociocultural approaches (Bryant et al. 2021). The sociocultural approach is well equipped to capture ways of knowing and being, through viewing the structure and character of social relations, collective practices and collective identities as strengths.

With three of the authors identifying as First Nations people from Murrawarri, Wardandi and Gomeroi Nations, a First Nations standpoint (Rigney 1999) may offer an intellectual position through which First Nations scholars can read and understand the Western system of knowledge (Nakata 2007).

The literature search identified existing evidence and approaches relating to First Nations people's physical activity and SEWB. The database search considered the following inclusion criteria:

1. Written in English
2. Studies that focused on First Nations people
3. Quantitative, qualitative, and mixed-method research
4. Studies that assessed the impact of physical activity on Social and Emotional Wellbeing, and interventions and programs which target these outcomes.

Eight relevant electronic research databases — including MEDLINE, Scopus and SPORTDiscus — were searched using identified keywords and index terms. These included Indigenous, Aboriginal, Torres Strait Islander, physical activity, sport, fitness, exercise, SEWB, wellbeing, mental health, self-esteem and culture. A location filter for 'Australia' was applied where available.

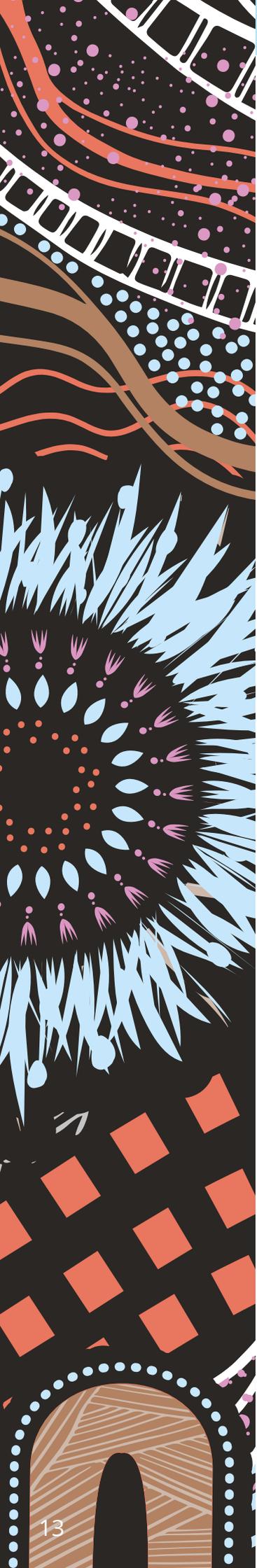
To capture additional grey literature, a search of government and community reports and websites that provide information, links and resources related to First Nations physical activity and SEWB was also conducted.

Relevant evidence and approaches were synthesised and described, and practical recommendations were provided using a conceptual model for First Nations wellbeing that connects family; community; culture, belonging and connection; holistic health; purpose and control; dignity and respect; and basic needs (Garvey et al. 2021), and is aligned with Indigenous ways of knowing, doing and being (Martin and Mirraboopa 2003).

# 4

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## Key issues



## 4 Key issues

A systematic review of 'physical activity' from a First Nations' perspective identified that physical activity is highly encouraged and socially approved when practised in the company of family and community — while associated feelings of shame and guilt are present among participants if done for individual, personal health benefit (Dahlberg et al. 2018). This highlights how the connectedness and overlap of self and community in First Nations contexts could be a focus of physical activity programs for First Nations people, by emphasising that care for self means one can better care for family.

The Australian Sports Commission (ASC) has a [First Nations-specific Clearinghouse for Sport](#) that shares information on Australian and international initiatives to support and encourage First Nations people's participation and leadership in all aspects of sport. The ASC AusPlay survey identified that, between 2018 and 2022, 36% of First Nations adults aged 18+ participated in a sport-related activity at least once a week.

Broken down by gender, 44% of First Nations men and 28% of First Nations women participated in a sport-related activity at least once a week (ASC 2023). There are also gender differences in overall physical activity participation (ASC 2023). In 2018–19, the proportion of adults achieving physical activity guidelines was slightly higher for First Nations males than for First Nations females (13% compared with 10%). Around one in five (20%) of First Nations adults had done strength or toning activities on two or more days within the preceding week, which was again higher for First Nations males (24%) than for First Nations females (15%) (ABS 2019).

There were also variations by age group. A higher proportion (13%) of First Nations adults aged 25–34 met the guidelines compared with 9% of those aged 35–44. Younger First Nations adults were about twice as likely as older First Nations adults to have done strength or toning activities on two or more days within the preceding week; around one in four of those aged 18 to 24 and those aged 25 to 34 (25% and 24%, respectively) met this guideline, compared with 12% of those aged 55 and over (ABS 2019).

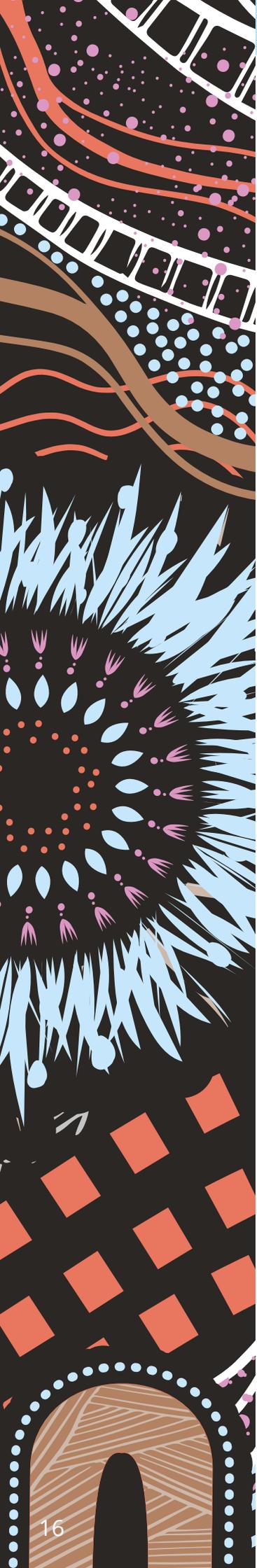
There are many physical activity programs and approaches for First Nations people and identifying their characteristics can help understand strategies that could encourage participation and achieve optimal SEWB outcomes (Macniven et al. 2017). A snapshot of physical activity programs targeting First Nations people in Australia identified 110 different programs that were operating between 2012 and 2015, most of which are still operating in 2023 (Macniven et al. 2017). The programs ranged in size from 10 to over 1,000 participants and took place in urban, rural and remote locations in all states and territories. Programs included a sport focus (including population team sports), or aimed to improve chronic disease risk factors through physical activity participation, but the extent of regular participation was often unknown. While most programs collected process or impact evaluation indicators, only 11 had been formally evaluated.



## Physical activity facilitators and barriers

A mixed-methods review assessing the facilitators and barriers to First Nations people's participation in physical activity programs highlighted 63 barriers across multiple levels of influence (individual, interpersonal, organisational, community, and public policy) (Allen et al. 2021). There were similarities between the number of facilitators and barriers evident across the different levels of influence, but there was a significant imbalance observed at the community level, with a much greater number of barriers identified. This indicates that to enhance SEWB, physical activity and SEWB strategies must address the community challenges faced by First Nations people (Allen et al. 2021). Specific barriers to participation included insufficient transportation; time inefficiency; high program costs; and conflicts with family and/or community commitments. Important facilitators of adult participation in physical activity include support from family and friends, and opportunities to connect with the community or culture (Allen et al. 2021).

Facilitators and barriers to older First Nations peoples' engagement in physical activity have also been investigated using a qualitative systematic review (Gidgup et al. 2021). The review highlighted how cultural safety and community-led programs can be key facilitators of program engagement when they prefer and adopt First Nations perspectives and priorities and enhance cultural identity (Gidgup et al. 2021). A systematic review of barriers and facilitators to physical activity and sports participation for First Nations children identified a total of 58 different barriers and 37 different facilitators across personal, interpersonal, community and policy domains (May et al. 2020). Interpersonal factors played a significant role, with friends and family engaging in physical activity being an important determinant of participation. Children in remote areas often faced more barriers regarding access to facilities, activities, transport and weather patterns.



# 5



## Policy context

## 5 Policy context

There is no current physical activity policy in Australia but there are guidelines for all Australians focused on daily physical activity (Department of Health 2019). There are, however, several national and state level policy documents that are relevant to First Nations people, physical activity and SEWB that are identified and described in this section.

Some of these policies, strategies and frameworks have already been well documented elsewhere (Darwin et al. 2023). This section therefore aims to provide summary descriptions and describe physical activity components of these policies, strategies and frameworks to extend what has already been well documented. (Refer to Appendix A for a more thorough description).

### National policies

#### National Aboriginal and Torres Strait Islander Health Plan 2021–2031

**The National Aboriginal and Torres Strait Islander Health Plan (2021–2031)** (Department of Health and Aged Care 2021) is a collaborative effort with Indigenous health leaders to enhance the wellbeing of these communities. The Plan takes a holistic approach, addressing physical, emotional and cultural health through partnerships and community-controlled primary care. Prevention is emphasised via health promotion, early intervention and trauma-informed practices.

Increasing physical activity is an identified strategy in the Plan. The ‘Adolescent and Youth Health’ implementation domain supports actions that will create environments for young people to increase health literacy and to make healthy choices; to identify and address health issues early; and to excel in areas such as sport, music, art and education.

#### National Agreement on Closing the Gap (the National Agreement) and Commonwealth Implementation Plan

The **National Agreement on Closing the Gap** (Commonwealth of Australia 2020) aims to address inequality and improve life outcomes for Aboriginal and Torres Strait Islander people through collaborative efforts between different levels of government in Australia. It involves formal partnerships; community-controlled sectors; better government organisations; and improved data access, focusing on 19 targets (including social and emotional wellbeing (SEWB) and suicide prevention).

The goal is to enhance SEWB through tailored initiatives and support services. Priority actions relevant to physical activity are AFL programs in First Nations communities in the Northern Territory and a Sport4All pilot project.

## The National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017–2023

The [National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017–2023](#) (Commonwealth of Australia 2017) targets First Nations peoples' SEWB and mental health, with the renewed Framework to guide and inform mental health and wellbeing reforms. The Framework contributes to the goals outlined by the *National Aboriginal and Torres Strait Islander Health Plan 2013–2023* associated with the Closing the Gap target to 'Close the life expectancy gap within a generation (by 2031)'.

The Framework safeguards accessibility of culturally appropriate and effective mental health services for First Nations people and aims to change and improve methods by which mental health programs and services are delivered for First Nations adults. Key recommendations address social determinants of health influencing SEWB. Support from a community sports group is indicated within as a case study.

## National Preventive Health Strategy 2021–2030

The [National Preventive Health Strategy 2021–2030](#) (Department of Health and Aged Care 2021) details a long-term approach to prevention that focuses on enhancing the health and wellbeing of all Australians. Increasing physical activity is a key area within the Framework for Action. First Nations people are a priority population within the Strategy. The Strategy acknowledges that health for First Nations people is recognised more holistically, being a state of physical, mental and social wellbeing. Mental health policy addresses SEWB for First Nations people, incorporating concepts of land-connection, spirituality and family. There are several components that target First Nations people that include an emphasis on the importance of connection to land, spirituality, ancestry and family and community.

## State policies

There are current policy documents relevant to First Nations people's SEWB in New South Wales, Victoria and Western Australia. No policies specifically relevant to both First Nations physical activity and SEWB were identified in other states and territories.

## NSW Healthy Eating and Active Living Strategy 2022–2032

This [NSW Health Strategy](#) is a 10-year framework with the primary goal to reduce obesity in Australia (NSW Health 2022). First Nations people are listed as a priority population.

The two main overarching targets are:

1. Reducing overweight and obesity in children and young people (by 5% by 2030)
2. Stopping the rise and reversing the trend of obesity in adults by 2030.

Other key recommendations include strengthening partnerships with community-controlled organisations to enhance lifestyle programs and service delivery and review existing initiatives for and with the First Nations community to improve areas of health.

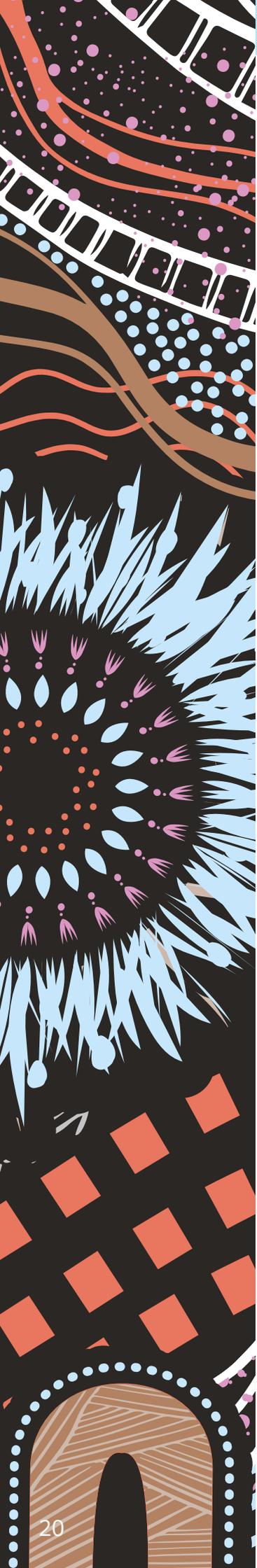


## Victorian Public Health and Wellbeing Plan 2019–2023

The [Victorian Public Health and Wellbeing Plan 2019–2023](#), developed by the Victorian Government Department of Health & Human Services works to address mental health and wellbeing, First Nations health, sexual/reproductive health, active living and promoting healthy lifestyles. Interventions are implemented to address these domains and to decrease inequities in Victoria over a four-year period. Implementation aims to ensure that First Nations communities in Victoria have access to culturally appropriate and effective healthcare services.

## WA Aboriginal Health and Wellbeing Framework 2015–2030

The [WA Aboriginal Health and Wellbeing Framework 2015–2030](#) (Government of Western Australia Department of Health 2015) was designed to guide programs and services with the goal of improving the health and wellbeing of Western Australian communities and solely focuses on First Nations people. Seven priority areas of the framework include addressing risk factors (physical activity, suicide prevention, mental health and SEWB), managing illness better, building community capacity, better health systems, First Nations workforce development, data/ evidence/ research, addressing the social determinants.



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## Programs and initiatives

## 6 Programs and initiatives

This section provides a brief description and findings of 9 evaluated physical activity programs and initiatives which aim to improve SEWB among First Nations people in Australia. These programs and initiatives are included in Appendix B.

### Deadly Choices

Deadly Choices is a health promotion initiative by the Institute for Urban Indigenous Health (IUIH). It aims to empower First Nations people to make healthy choices for themselves and their families (Malseed et al. 2014a). The program started as a social marketing initiative and included community events which focused on health education and health screening. Focus areas include making choices to stop smoking, to eat healthy food and to exercise daily, by helping people improve their knowledge of chronic disease and risk factors, and by encouraging engagement with local health services. The initiative has been running since 2010, and programs and events include sport and recreation, cooking programs, tobacco cessation programs and education.

Two impact evaluations of Deadly Choices were conducted by IUIH, in partnership with First Nations university researchers, in south-east Queensland in 2013 (Malseed et al. 2014a; Malseed et al. 2014b).

- One study examined the effectiveness of Deadly Choices, within a school-based health promotion and education program, in improving the knowledge, attitudes, self-efficacy and behaviours of urban First Nations young people regarding chronic disease and associated risk factors (Malseed et al. 2014a). Pre- and post-program surveys showed significant improvements in attitudes and self-efficacy among 65 participants compared with a control group — specifically, confidence in preventing chronic disease and having a health check.
- Another evaluation found an improvement in participants' health literacy relating to chronic disease risk factors. It also found that the program had facilitated community engagement with local health services and that it had provided an opportunity for Aboriginal and Torres Strait Islander people to increase social connections (Malseed et al. 2014b).

A further ethnographic study involved observation of interactions between Deadly Choices and its online community members on Deadly Choices social networking sites. The study found that these sites provided a powerful tool to create a safe, inclusive and positive space for First Nations people and communities to profile their healthy choices, aligned with First Nations peoples' notions of health and identity. There were five principles underpinning Deadly Choices' use of social networking sites for health promotion: create a dialogue; build community online and offline; incentivise healthy online engagement; celebrate First Nations identity and culture; and prioritise partnerships (McPhail-Bell et al. 2017).

### Dead or Deadly

The Dead or Deadly program is a holistic healthy-lifestyle initiative designed for and by local First Nations women by Waminda, the South Coast Women's Health and Wellbeing Aboriginal Corporation in New South Wales. It aims to improve health, wellbeing and cultural connection by improving health literacy and lifestyle choices (Roberts et al. 2022). The program commenced in 2010



and operates within a social model of health, targeting physical health, self-esteem, family dynamics, education and cultural identity. Dead or Deadly encompasses lifestyle medicine, smoking cessation, weight wellness, yarnning groups, holistic health and physical activity/exercise.

In 2015, Waminda conducted an internal qualitative study evaluation of Dead or Deadly, in partnership with First Nations university researchers. Interviews with 30 participants showed that the program delivers SEWB support and improvements; strengthens community; builds support networks; and increases resilience and self-esteem (Fredericks et al. 2016). A subsequent evaluation in 2022 found that the program design is sound; that outputs and activities are leading to desired outcomes; and that it is feasible for the program to be delivered in its current context. The program reached 648 women over a three year period and most targets were met or exceeded and all program objectives were achieved, concluding that Dead or Deadly is a success in providing healthy lifestyle advice, services and support, tailored to each participant's needs (Roberts et al. 2022).

## Traditional Indigenous Games (TIG) Program

The TIG program aims to provide a sense of belonging within a school environment for First Nations children, through teaching TIG (Kiran and Knights 2010). TIG involves a selection of games and physical activities historically played by First Nations communities during social gatherings. It is a school-based program, and the games are chosen based on age-appropriateness, as set out in the TIG resource *Yulunga: Traditional Indigenous Games*.

The program took place weekly for three months. An independent evaluation was conducted through a cluster randomised control trial in four primary schools in 2007. The evaluation aimed to investigate the effectiveness of TIG in improving physical activity and cultural connectedness among primary school students in Townsville, North Queensland (Kiran and Knights 2010). The evaluation showed no evidence of an increase in cultural connectedness or physical activity among 167 First Nations participants. The evaluation suggested that enhancing the cultural features of the program may help to increase cultural connectedness.

## Community surfing programs

First Nations surfing programs emphasise development of surf skills, particularly water safety (Rynne and Rossi 2012). Community surfing programs may vary in terms of history, structure, format and delivery. Some programs included weekend surfing camps a few times per year, while others involve weekly group-based surf lessons throughout the school term.

An independent qualitative evaluation of ASC and Surfing Australia surf programs was conducted by non-Indigenous university researchers across five sites in New South Wales, Victoria, Queensland and South Australia. The 98 participants (including surfing participants, providers (surf instructors) and community members) involved in the evaluation indicated that surfing is an appropriate sport for First Nations communities (Rynne and Rossi 2012). Surf programs provided a way for First Nations people to (re)connect with Country while also fostering connections between participants and program providers, and with other First Nations children. The findings showed the importance of recognising the diversity of First Nations culture and community dynamics and of seeking appropriate guidance. Common elements found in successful surf programs included strict surfer-to-coach ratios, opt-in opt-out structures, and avoidance of controlling behaviours by coaches.



Quality programs provided consistency in personnel, favouring small groups over single providers. These surfing programs had the potential to connect participants so they could learn and develop in a variety of meaningful ways.

## Indigenous Marathon Program (IMP)

The Indigenous Marathon Foundation (IMF) is a health promotion charity that uses running to celebrate First Nations resilience and achievement and create inspirational Indigenous leaders. Each year since 2010, IMF's flagship program, the Indigenous Marathon Project (IMP), has supported up to 12 young First Nations adults, aged between 18 to 30 years, to undergo marathon training while living in their usual community (Macniven et al. 2018a). They are also supported to undertake vocational courses in health, fitness and running coaching and encouraged to establish local community First Nations running groups and fun runs, using running and local role models to promote healthy lifestyles. IMF programs include IMF Running and Walking (RAW), a grass roots, community-led impact program.

A multi-method (qualitative and quantitative) independent evaluation of the program was conducted by First Nations and non-Indigenous university researchers in 2017, with input from 122 running festival participants (62 First Nations and 42 non-Indigenous) and 18 stakeholders (14 First Nations and 4 non-Indigenous) (Macniven et al. 2018b). The evaluation found that increased social support had resulted from participation, with group support and role-modelling of IMP participants. It also found changes in social norms around the adoption of healthy lifestyles. There was an enhanced community readiness to adopt healthy lifestyles and there was a gradual reduction in 'shame' or being ashamed when participating in physical activity.

A Social Return on Investment (SROI) analysis conducted by a not-for-profit organisation in 2018 found a ratio of 6.6:1 — meaning that for every \$1 invested in IMP (between 2014–2016, approximately \$6.60 of social, cultural and economic value was created (Social Ventures Australia 2018). The analysis also found that IMP creates a ripple effect on the health and wellbeing outcomes of First Nations people, which can lead to long-term structural change.

## Fitzroy Stars Football Club

The Fitzroy Stars are a First Nations football club based in Melbourne, Victoria. Located in the northern suburbs of Melbourne, the 'Stars' are an Australian Rules football club that originated in the early 1970s with the support of the Victorian Aboriginal Health Service and other local First Nations community organisations (Thorpe et al. 2014). The club was formed to be a diversionary strategy for First Nations youth and to provide a safe place for people to get together and participate in sport. The club aims to improve men's health, increase positive parenting and strengthen the Koori community in Melbourne.

A qualitative evaluation of the program with 14 players was conducted by First Nations and non-Indigenous university researchers with extensive community knowledge and existing relationship with the club. Findings highlighted the significance of cultural values and community connection for First Nations people, and showed how social connections and strong community networks in sports settings play a crucial role in maintaining and strengthening cultural identity (Thorpe et al. 2014). Participation in the team was driven not only by individual health considerations but also by the importance of social and community connections.

## Sport-Based Youth Mentoring Program

This sports mentoring program, run by an Aboriginal community controlled organisation, has been delivered in a small number of remote communities for one week, three times each year, since 1995 (Peralta and Cinelli 2016). The program aims to promote school attendance and engagement; goal setting; sporting participation; and positive lifestyle choices among young people. The mentoring involves working with schools and community members to provide inspiration, encouragement and support to students.

An independent qualitative evaluation of the mentoring program, conducted by non-Indigenous university researchers in three remote communities in the Northern Territory, showed that the program builds relationships and broadens skills and exposure; supports school activities; and increases students' self-esteem and aspirations (Peralta et al. 2018). The program has also been shown to increase community connections and cultural understanding. Through improved school attendance, increased knowledge of sports and activities and feelings of wellbeing and pride, the program had had a positive influence on youth educational and social development as well as on the cultural health needs of the community (Peralta and Cinelli 2016).

## 'Strong Men': Aboriginal community development of a cardiovascular exercise and health education program

This 10-week program was a tailored cardiovascular exercise and education program for Aboriginal men at Albury Aboriginal Community Controlled Health Organisation (ACCHO) in New South Wales developed by the men and a First Nations university researcher prior to commencement in 2017 (Biles 2020). Evaluation drew on the experiences of Aboriginal men who had participated in the program, and assessed the impact of a culturally appropriate tailored exercise and health education program on physiological risk factors associated with cardiovascular disease. The evaluation found improvements in risk factors and that Aboriginal men want to have an active voice in improving their health and wellbeing outcomes. These positive health behaviour changes were associated with increases in self-confidence and self-efficacy that are relevant to SEWB. The health education sessions provided the time and space for the men to yarn about their health and wellbeing. These conversations increased their levels of self-confidence, which was integral to improving self-efficacy.

The Strong Men model was developed with participants, and it illustrates the grounded theory that emerged during this study which represents the experiences of the Aboriginal men.

Strong Men illustrates four interdependent principles of change:

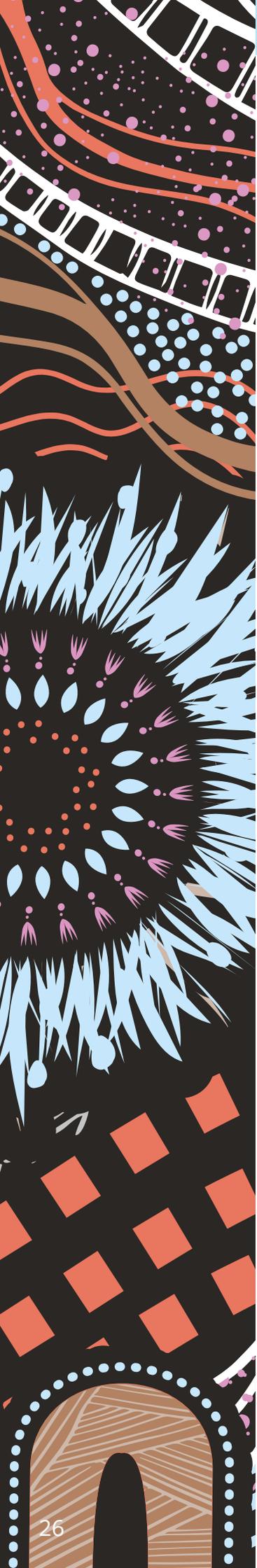
- Privileging Aboriginal men's voices
- Influencing Aboriginal men's attitudes towards health and changing health behaviours and increasing self-efficacy
- Culturally safe practice for Aboriginal men's health and wellbeing
- Sustainable models of practice (Biles 2020).



## Sport and Active Recreation Program in an Indigenous Men's Shed

The Sport and Active Recreation program at a remote Indigenous Men's Shed involved a combination of physical activity (swimming, water aerobics, gym-based activities, darts, and pool competitions) and a healthy eating program. The Men's Shed aimed to improve social connectedness for socially and economically disadvantaged at-risk men within culturally diverse Indigenous communities (Cavanagh et al. 2015). Men (aged 22–65 years) attended swimming and water aerobics classes; participated in gym activities; joined darts and pool competitions; and men and women attended a healthy eating program. Programs ranged from 10 weeks to 6 months.

An independent evaluation by non-Indigenous university researchers conducted interviews and yarning circles with nine men involved in the program. The evaluation found that the program had enhanced self-esteem, health benefits and cutting back on alcohol, and had improved eating behaviours and physical activity levels, social connectedness, and connection with family and culture (Cavanagh J et al. 2015). There was also a positive change in health attitudes and behaviours at an individual level. Men felt connected with other members of the Men's Shed due to their program participation.



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**Overarching  
strategies,  
approaches,  
and best  
practice**

## 7 Overarching strategies, approaches, and best practice

The achievement of SEWB outcomes through physical activity programs is directly linked to the adoption of both cultural safety and community-led programs. Specifically, First Nations physical activity programs can enhance confidence and self-esteem, improve community cohesiveness and cultural identity and deepen connection to Country (Macniven et al. 2019). First Nations people readily engage in traditional practices when On-Country. Therefore, identifying the benefit of these self-initiated activities will highlight potential community-driven practices — already present in many remote areas — that could be harnessed by more structured physical activity programs that aim to improve SEWB.

In Section 6 we discussed 9 evaluated physical activity programs and initiatives which aimed to improve SEWB among First Nations people; have achieved SEWB outcomes; and can therefore be considered as best practice in the context of currently available evidence. Key principles for these programs focused on the social and cultural determinants of health, embracing a proactive approach that encompasses the sociocultural and socioeconomic factors and education as well as environmental factors.

Most of these programs also utilised Indigenous ways of knowing, being and doing (Martin and Mirraboopa 2003). This allows First Nations people to become the managers of their solutions; to determine their ways forward (Sherwood 2010).

As discussed earlier, there is no current national physical activity policy in Australia but there are guidelines for all Australians that focus on daily physical activity. There are, however, several national and state level policy documents that are relevant to First Nations physical activity and SEWB.

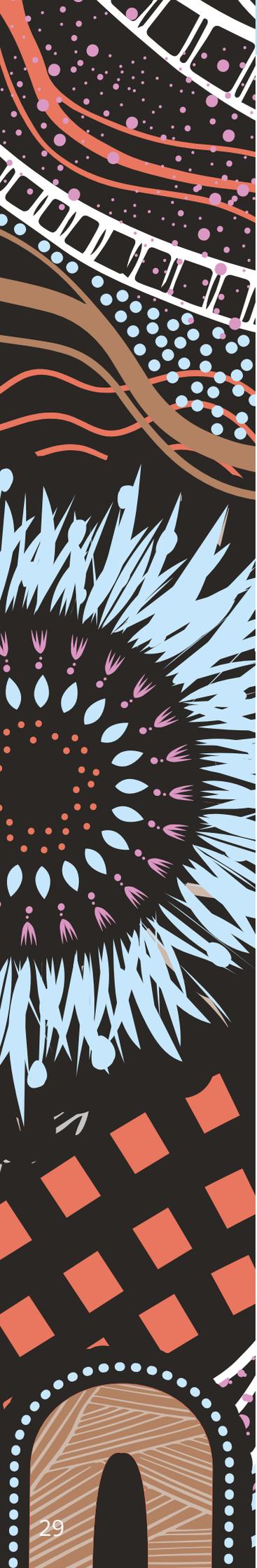
These documents all acknowledge the importance of:

- Improving methods by which programs and services are delivered for First Nations adults to address social determinants of health influencing SEWB. Effective approaches must comprise holistic approaches; cross-sectoral and intergovernmental action; the valuing of First Nations knowledge, cultural beliefs and practices; and collaborative working relationships.
- The key role sport and physical activity can play in relation to promoting positive SEWB among young people.
- The more holistic way that health for First Nations people is recognised as a state of physical, mental and social wellbeing. Policy addressing SEWB for First Nations people needs to incorporate concepts of land-connection, spirituality and family.

In addition, the embedding of cultural safety in 'physical activity' disciplines (such as physiotherapy and exercise physiology courses); the development of culturally safe physical activity and SEWB programs; and enhancing the cultural safety of health practitioners could increase the effectiveness of these programs and enhance SEWB outcomes for First Nations people.



The *WA Aboriginal Health and Wellbeing Framework 2015–2030* represents current best practice for First Nations physical activity and SEWB policy. Its key recommendations identify a stronger need for cost-effective, community-based approaches to service delivery and enhanced primary health care. To improve culturally appropriate health care, services at the local level should acknowledge the protective force of culture and its positive contribution to wellbeing. The principles identified in this framework could inform policy in other Australian jurisdictions.



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## Conclusions and recommendations for further research

## 8 Conclusions and recommendations for further research

Social and Emotional Wellbeing (SEWB) for First Nations people is a complex concept, which takes into consideration the influence on health of connection to land, culture, spirituality, family and community. Physical activity has always been relevant to First Nations culture, and connecting with Country through physical activity promotes togetherness, which in turn supports SEWB. First Nations physical activity programs can enhance confidence and self-esteem, improve community cohesiveness and cultural identity and deepen connection to Country.

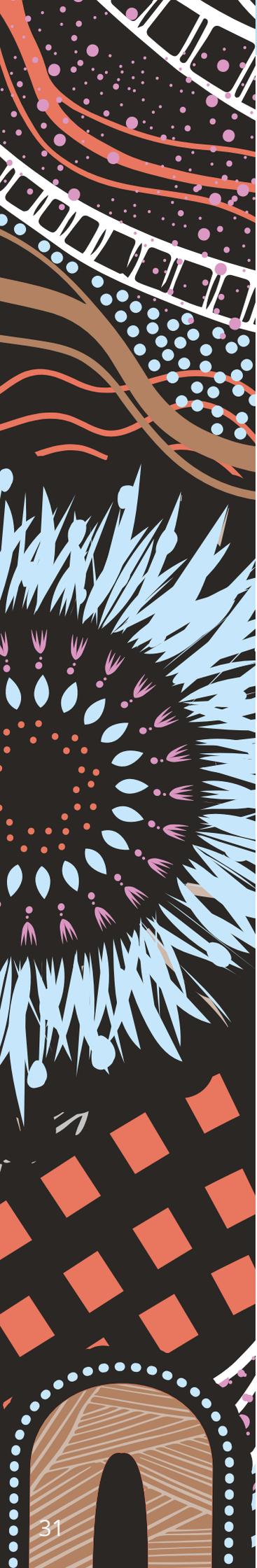
Understanding the cultural, historical, and social factors that influence physical activity and SEWB among First Nations people is essential for developing effective programs and policies. Culturally appropriate approaches that address known barriers and promote the known facilitators to participation are crucial for improving physical activity levels and enhancing overall SEWB outcomes.

For example:

- The achievement of SEWB outcomes through physical activity programs is directly linked to the adoption of both cultural safety and community-led programs. Physical activity programs are more effective when they are community-led, culturally sensitive and align with First Nations values. Support from family and friends, and opportunities to connect with community or culture, also facilitates participation in these programs.
- Racism and discrimination experienced by First Nations people contributes to anxiety, depression, psychological distress and poor physical health outcomes, and can act as a deterrent to accessing programs, services and initiatives designed to improve SEWB. However, measures to address racism and discrimination are absent in the majority of national and state level policy documents.

While there are relevant policy documents at national and state levels, the coordinated implementation of these policies and programs, and their impact on physical activity levels and SEWB outcomes, is not well understood. This underscores the need for policy, as well as program, evaluation, and for collaborative working relationships and cross-sectoral and inter-governmental action.

We are more likely to achieve positive change by recognising effective approaches, and especially by valuing First Nations knowledge, cultural beliefs and practices. First Nations community engagement, direction and ownership in all aspects of the conception, development, implementation and evaluation of policies and programs is essential to effective policy and practice.



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## Appendixes

# Appendix A: Policies and frameworks

Table A1: Description of policies and frameworks

Name	Details	Key recommendations	Implementation
<p>National Aboriginal and Torres Strait Islander Health Plan 2013–2023 and Implementation Plan for the National Aboriginal and Torres Strait Islander Health Plan 2013–2023</p>	<p>This Health Plan provides a long-term, evidence-based policy framework as part of the overarching Council of Australian Governments (COAG) approach to Closing the Gap</p>	<p>Increasing physical activity is an identified strategy in the plan. The Mental Health and Social and Emotional Wellbeing Goal within the plan describes how sport can play a key role in relation to promoting positive social and emotional wellbeing among young people.</p> <p>Case studies demonstrate examples of good practice that is improving the health and wellbeing of First Nations people. One of the case studies is 'Heart Health – for our people, by our people', a program that provides a culturally secure environment for the provision of exercise and education to address cardiovascular health. However, it does not have a SEWB focus.</p>	<p>The Implementation Plan addresses the broad changes needed to make the health system more comprehensive, culturally safe and effective. It has a strong focus on prevention, as well as on improving the patient journey of First Nations people through the health system.</p> <p>The 'Adolescent and Youth Health' implementation domain supports actions that will create environments for young people to increase health literacy and make healthy choices, to identify and address health issues early, and to excel in avenues such as sport, music, art and education.</p> <p>A 2018 deliverable was that 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey nutrition and biomedical data be used to identify new evidence-based research and strategies to support good nutrition and physical activity choices and to identify unmet needs in primary health care.</p>

(continued)

**Table A1 (continued): Description of policies and frameworks**

Name	Details	Key recommendations	Implementation
<p><b>National Agreement on Closing the Gap (the National Agreement) and 2023 Commonwealth Closing the Gap Implementation Plan</b></p>	<p>The Closing the Gap Policy was first established in 2008 by the Council of Australian Governments (COAG). It was developed with the primary goal of 'closing the gap' between First Nations and non-Indigenous Australians across several domains covering life expectancy, child mortality, education and employment. The Closing the Gap policy is being implemented by federal, state and territory governments in Australia.</p> <p>The National Agreement revised partnership between the Australian Government and the Coalition of Aboriginal and Torres Strait Islander Peak Organisations was established in 2020.</p>	<p>Eight key recommendations include ensuring mental health, suicide prevention, and social and emotional wellbeing services are culturally safe and responsive to the needs of First Nations communities. This includes promoting community-led activities, cultural events, and programs that strengthen social support networks and promote positive social interactions.</p>	<p>Implementation involves strategies, programs, and initiatives across different sectors (health, education, employment, housing and justice). It combines efforts from multiple parties, including the Australian federal government, state governments, organisations and communities. Changes were made to the framework in 2020 as data analysis identified failure to meet a majority of set targets. The revised framework seeks to address disparities within the First Nations community and to empower communities to drive their own development and wellbeing through the 2023 Implementation Plan.</p> <p>AFL in First Nations communities in the Northern Territory and a Sport4All pilot project are Priority Actions.</p>
<p><b>The National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017-2023</b></p>	<p>The framework is national, developed by the Australian Government to target First Nations SEWB and mental health, to guide and inform mental health and wellbeing reforms. The framework aims to contribute to the goals outlined by the National Aboriginal and Torres Strait Islander Health Plan 2013-2023 associated with the Closing the Gap target of closing the life expectancy gap 'within a generation' (by 2031). The framework safeguards accessibility of culturally appropriate and effective mental health services for First Nations people.</p>	<p>This framework aims to change and improve the methods by which mental health programs and services are delivered for First Nations adults. Key recommendations address social determinants of health influencing SEWB, by recognising that effective approaches must comprise holistic approaches; cross-sectoral and intergovernmental action; valuing First Nations knowledge, cultural beliefs and practices; and collaborative working relationships. Support from a community sports group is indicated within a case study.</p>	<p>There are five key action areas for framework implementation, which are established on a 'stepped care' model of primary mental health care service delivery:</p> <ol style="list-style-type: none"> <li>1. Strengthen the foundations</li> <li>2. Promote wellness</li> <li>3. Build capacity and resilience in people and groups at risk</li> <li>4. Provide care for people who are mildly or moderately ill</li> <li>5. Care for people living with a severe mental illness.</li> </ol> <p>Each action area has several outcomes with specific rationales, strategies, and 'good example' actions which aim to improve mental health and emotional outcomes.</p>

(continued)

Table A1 (continued): Description of policies and frameworks

Name	Details	Key recommendations	Implementation
<p><b>National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework and Implementation Plan 2021–2031</b></p>	<p>The plan's target is for First Nations people to be fully represented in the health workforce by 2031. It includes actions to attract, recruit and retain workers across all roles, levels and locations within the health sector.</p>	<p>This plan supersedes the previous National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework 2016–2023. It combines a refreshed strategic framework and implementation plan into one document. The plan is guided by 6 overarching strategic directions to support the ongoing development of the size, capability and capacity of the First Nations health workforce.</p>	<p>Through extensive consultation, implementation strategies have been identified to achieve the desired outcomes of the six strategic directions, from short-term interventions to longer-term systemic reforms.</p> <p>Many of the actions require communities, stakeholders and all governments to collaborate. The National Workforce Plan supports and guides all health, education and training sectors, roles and professions that contribute to effective health service delivery for First Nations peoples.</p>
<p><b>National Preventive Health Strategy 2021–2030</b></p>	<p>This Australian Government national strategy details a long-term (2021–2030) approach to prevention that focuses on enhancing the health and wellbeing of all Australians.</p> <p>It involves the engagement of state governments, the non-government sector, local health service providers, private providers, industry and the wider Australian population.</p> <p>Increasing physical activity is a key area within the Framework for Action. First Nations people are a priority population within the Strategy.</p>	<p>The strategy acknowledges that health for First Nations people is recognised, more holistically, as being a state of physical, mental and social wellbeing.</p> <p>Mental health policy addresses SEWB for First Nations people, incorporating concepts of land-connection, spirituality and family.</p> <p>There are several strategies that target First Nations people including 'Mental health policy addresses social and emotional wellbeing for Aboriginal and Torres Strait Islander people, including the importance of connection to land, spirituality, ancestry and family and community'.</p>	<p>The Strategy has been implemented via several measures, including public awareness campaigns, and targeted interventions such as integrating mental health promotion into preventative health programs and enhancing mental health service accessibility.</p> <p>Its implementation aims to address social determinants of health and decrease the stigma surrounding mental health.</p>

(continued)

Table A1 (continued): Description of policies and frameworks

Name	Details	Key recommendations	Implementation
<p><b>NSW Healthy Eating and Active Living Strategy 2022-2032</b></p>	<p>This NSW Strategy is a 10-year framework, first established in 2022, with the primary goal of reducing obesity in Australia. The NSW Ministry of Health is responsible for strategy implementation, with key partners including Local Health Districts, shared government services, and federal, state/ territory and local government agencies. First Nations people are listed as a priority population.</p>	<p>The two overarching targets are:</p> <ol style="list-style-type: none"> <li>1. Reducing overweight and obesity in children and young people (by 5% by 2030)</li> <li>2. Stopping the rise, and reversing the trend, of obesity in adults by 2030.</li> </ol> <p>Other key recommendations include strengthening partnerships with community controlled organisations to enhance lifestyle programs and service delivery, and reviewing existing initiatives for, and with, the First Nations community to improve areas of health.</p>	<p>Strategic implementation includes strengthening the community connection of the NSW Aboriginal Knockout Health Challenge.</p> <p>The strategy implements the formation of new care and delivery models to enhance support accessibility to families and children to contribute to closing the gap and the review of existing initiatives for First Nations people.</p> <p>This program does not focus on SEWB.</p>
<p><b>Victorian Public Health and Wellbeing Plan 2019-2023</b></p>	<p>This plan, operating in Victoria in 2019-2023, is a framework developed by the Victorian Government. The plan works to address mental health and wellbeing, First Nations health, sexual/reproductive health and active living, and to promote healthy lifestyles including healthy eating. Interventions address these domains to decrease inequities in Victoria over a four-year period.</p>	<p>The plan's approach includes driving action towards factors that contribute most strongly to the burden of disease and health inequalities; and considering the impacts that determinants have on health outcomes, to deliver public health and wellbeing interventions.</p>	<p>Implementation aims to ensure that First Nations communities in Victoria have access to culturally appropriate and effective healthcare services. A 'cross-government working group' has been put into place to monitor and support the implementation of the plan and to aid in the development of the next public health and wellbeing plan for 2023-2027.</p>

(continued)

Table A1 (continued): Description of policies and frameworks

Name	Details	Key recommendations	Implementation
<p><b>WA Aboriginal Health and Wellbeing Framework 2015 – 2030</b></p>	<p>This 10-year framework was first established in 2015 by the WA Department of Health in collaboration with First Nations communities. The framework was designed to guide programs and services with the goal of improving the health and wellbeing of Western Australian communities. The framework operates specifically within the state of Western Australia to address community-specific wellbeing needs. The programs and services are implemented by numerous government agencies, healthcare organisations and other community services.</p>	<p>Seven priority areas of the framework include:</p> <ul style="list-style-type: none"> <li>• addressing risk factors (physical activity, suicide prevention, mental health and SEWB)</li> <li>• managing illness better</li> <li>• building community capacity</li> <li>• better health systems</li> <li>• First Nations workforce development</li> <li>• data/evidence/research</li> <li>• addressing the social determinants.</li> </ul> <p>Key recommendations emphasise the need for a cost-effective, community-based approach to service delivery and enhanced primary health care.</p> <p>Services at the local level should acknowledge the protective value of culture and its positive impacts on wellbeing, in order to improve culturally appropriate health care and services.</p>	<p>Implementation requires system-level action across all social determinants.</p> <p>Effective implementation of the framework:</p> <ul style="list-style-type: none"> <li>• recognises the importance of culture and of community-based interventions</li> <li>• encourages ways of addressing health needs and wellbeing outcomes by ensuring services are evidence-based and culturally responsive.</li> </ul>

# Appendix B: Programs

Table B1: Description of programs, their evaluations and their outcomes

Program	Program details	Evaluation	Evaluation details	Findings
<b>Deadly Choices</b> Empowers First Nations people to make healthy choices for themselves and their families, including to exercise daily. Includes a school health-education focus.	Location(s): Qld	Impact: Non-randomised controlled trial of school health education focus	Location(s): South East Qld	Intervention group participants had improved self-efficacy and were significantly more confident to prevent chronic disease than control group participants, but there was no difference for leadership confidence
	Participants: All ages and genders		Participants: 65 participants: • 49 in the intervention group • 16 in the control group. Boys and girls, 11–18 years	
	Duration: Current; since 2010		Duration: 7-week health education program (pre/post)	
	First Nations specific: Yes		First Nations specific: Yes	
	Focus: Self-efficacy		Focus: Self-efficacy	
<b>Dead or Deadly Program</b> Comprehensive, holistic healthy lifestyle program where women participate in personalised health and wellbeing programs, group exercise, health education and camps	Location(s): Southern NSW	Qualitative: Semi-structured interviews, yarning, Dadirri	Location(s): Southern NSW	Participants reported that the program delivered social and emotional wellbeing support and improvements, strengthening of community, building of support networks, and increasing resilience and self-esteem
	Participants: Adult women		Participants: 30 women aged 16 and over	
	Duration: Current; since 2016		Duration: 2013	
	First Nations specific: Yes		First Nations specific: Yes	
	Focus: Holistic health and wellbeing (SEWB)		Focus: Holistic health and wellbeing (SEWB)	

(continued)

Table B1 (continued): Description of programs, associated evaluations and outcomes

Program	Program details	Evaluation	Evaluation details	Findings
<b>Traditional Indigenous Games (TIG) Program</b> One hour of game participation for 12 weeks, delivered by teachers who received specific training in the program	Location(s): North Qld	Impact: Cluster randomised control trial with baseline and post-implementation surveys	Location(s): North Qld	No statistically significant improvement in physical activity levels or cultural connectedness.
	Participants: Primary school students		Participants: Primary school students aged 9–12 years (N=167, M=54%)	
	Duration: TIG program delivered weekly over a 3-month period in 2007		Duration: Trial conducted in four primary schools in 2007	
	First Nations specific: Yes		First Nations specific: Yes	
<b>Community surfing program</b> Surfing programs that included weekly two-hour (term time) programs, weekend 1.5-hour lessons 3–4 times/year and a carnival, Indigenous state surf titles	Focus: Cultural connectedness	Qualitative (field notes, photographs, video footage, participant observation, document analyses, semi-structured interviews).	Focus: Cultural connectedness	Outcomes included reconnection with Country; fostered connections between participants; bond-formation with other First Nations children; and passing on of aspects of culture (all enhancing SEWB).  Participants developed psycho-social skills related to confidence, self-esteem, empathy, maturity and independence. Additionally, increased school attendance was noted.
	Location(s): NSW, Vic, Qld, SA		Location(s): NSW, Vic, Qld, SA	
	Participants: Approximately 6 to 30 participants at each surfing session		Participants: • 39 surfing participants (M/F aged 15–25 years) • 24 program providers and community members • 98 program participants total	
	Duration: Unknown		Duration: Unknown	
	First Nations specific: Yes		First Nations specific: Yes	
	Focus: Culture, SEWB		Focus: Culture, SEWB	

(continued)

Table B1 (continued): Description of programs, associated evaluations and outcomes

Program	Program details	Evaluation	Evaluation details	Findings
<b>Indigenous Marathon Program (IMP)</b> engages young First Nations adults to undergo marathon, undertake health, fitness and running coaching courses and to establish local community First Nations running groups and fun runs, using running and local role models to promote healthy lifestyles	Location(s): National  Participants: Annually, approximately 12 young First Nations adults aged 18–30 years and community participants of all ages	Multimethod: Qualitative semi-structured interviews; quantitative questionnaire	Location(s): Thursday Island, Torres Strait, Qld  Participants: 122 total running festival participants: • 62 First Nations • 42 non-Indigenous • 18 stakeholders: • 14 First Nations • 4 non-Indigenous (M/F aged 18 years and over)  Duration: 2016	Increased social support occurred where people participated in group activities with group support and changing social norms to adopt healthy lifestyles. An increased level of enhanced community readiness to adopt healthy lifestyles also occurred. Gradual reduction in 'shame' when participating in physical activity
	Duration: Ongoing; since 2010  First Nations specific: No (Non-Indigenous people may participate in community groups)		First Nations specific: No	
	Focus: Running and role-modelling		Focus: Perceptions of health and community impact	

(continued)

Table B1 (continued): Description of programs, associated evaluations and outcomes

Program	Program details	Evaluation	Evaluation details	Findings
<b>Fitzroy Stars Football Club</b> A community sports club that creates opportunities for Aboriginal people through sport and provides a safe place for community participation	Location(s): Melbourne, Vic	Qualitative – Four semi-structured interviews and three focus groups	Location(s): Melbourne, Vic	Participants spoke of the significance of cultural values and community connection. Social reasons for participation were given equal importance as individual health reasons where social and community connection was an important way to strengthen and maintain cultural values and identity. Club helped reduce stress and build self-confidence and self-esteem
	Participants: Adult men		Participants: 14 males aged 18 and over (nine current players, five past players of the Fitzroy Stars Football Club)	
	Duration: Established in 1970s		Duration: Commenced 2011	
	First Nations specific: Yes		First Nations specific: Yes	
	Focus: SEWB (stress, self-confidence and self-esteem)		Focus: SEWB (stress, self-confidence and self-esteem)	
<b>Sport-based youth mentoring program</b> Three times a year, for one week. External mentors provide inspiration, encouragement and support for school students through sport and recreation activities and nutrition education	Location(s): NT Remote schools	Case Study Design: community-based participatory research. Interviews involving stakeholders, mentors and students; student artworks	Location(s): Three NT Remote Schools	Program built relationships and broadened skills and exposure; supports school activities; increases students' self-esteem and aspirations. There were increases in community connections and cultural understanding and feelings of wellbeing and pride.
	Participants: Unknown		Participants: 126 participants: <ul style="list-style-type: none"> <li>• 55 students</li> <li>• 71 stakeholders</li> </ul> M/F	
	Duration: 1995-present		Students: not reported; adult stakeholders	
	First Nations specific: Yes		Duration: 2013	
	Focus: Culture, SEWB (self-esteem, self-confidence)		Focus: Culture, SEWB (self-esteem, self-confidence)	

(continued)

Table B1 (continued): Description of programs, associated evaluations and outcomes

Program	Program details	Evaluation	Evaluation details	Findings
<b>'Strong Men': Aboriginal community development of a cardiovascular exercise and health education program</b> A tailored cardiovascular exercise and education program	Location(s): Albury, NSW Participants: 16 men Duration: 2017–2019 First Nations specific: Yes Focus: SEWB (self-confidence, self-efficacy)	Qualitative yarning circles	Location(s): Albury, NSW Participants: 16 men Duration: 2017–2019 First Nations specific: Yes Focus: SEWB (self-confidence, self-efficacy)	Health education sessions provided the time and space for the men to yarn about their health and wellbeing. In turn, these conversations increased their levels of self-confidence, which was integral to improving self-efficacy
	Location(s): Unknown Participants: Mostly men (both First Nations and Non-Indigenous) Duration: 2004–Present First Nations specific: No Focus: Social connectedness	Qualitative case study. Semi-structured interviews and yarning circles	Location(s): Unknown Participants: Nine men Duration: 2013 First Nations specific: Yes Focus: SEWB (social connectedness, sense of belonging)	Enhanced self-esteem; health benefits and cutting back on alcohol; improved eating behaviours and physical activity levels; social connectedness; and connecting with family and culture. At an individual level, evidence indicated a positive change in health attitudes and behaviours. Men felt connected with other members of the Men's Shed due to program participation.
<b>Sport and active recreation programs in an Indigenous Men's Shed</b> A combination of physical activity (swimming, water aerobics, gym-based activities, darts, and pool competitions) and healthy eating	Location(s): Unknown Participants: Mostly men (both First Nations and Non-Indigenous) Duration: 2004–Present First Nations specific: No Focus: Social connectedness	Qualitative case study. Semi-structured interviews and yarning circles	Location(s): Unknown Participants: Nine men Duration: 2013 First Nations specific: Yes Focus: SEWB (social connectedness, sense of belonging)	Enhanced self-esteem; health benefits and cutting back on alcohol; improved eating behaviours and physical activity levels; social connectedness; and connecting with family and culture. At an individual level, evidence indicated a positive change in health attitudes and behaviours. Men felt connected with other members of the Men's Shed due to program participation.



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## Abbreviations

ACCHS	Aboriginal Community Controlled Health Service
ACCHO	Aboriginal Community Controlled Health Organisation
AHMAC	Australian Health Ministers Advisory Council
AIHW	Australian Institute of Health and Welfare
ASC	Australian Sports Commission
COAG	Council of Australian Governments
IMF	Indigenous Marathon Foundation
IMP	Indigenous Marathon Program
IUIH	Institute for Urban Indigenous Health
NSW	New South Wales
QLD or Qld	Queensland
NT	Northern Territory
SA	South Australia
SEWB	social and emotional wellbeing
SROI	social return on investment
TIG	Traditional Indigenous Games
WA	Western Australia
VIC or Vic	Victoria



- Caspersen CJ, Powell KE and Christenson GM (1985) 'Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research', *Public Health Reports* 100(2):126–31.
- Cavanagh J, Southcombe A, Bartram T and Hoyer R (2015) 'The impact of sport and active recreation programs in an Indigenous Men's Shed', *Journal of Australian Indigenous Issues* 18(3):17–33, <https://doi.org/10.3316/informit.199093316520319>.
- Commonwealth of Australia (2020) *National Agreement on Closing the Gap*, Commonwealth of Australia.
- Dahlberg EE, Hamilton SJ, Hamid F and Thompson SC (2018) 'Indigenous Australians perceptions' of physical activity: a qualitative systematic review', *International Journal of Environmental Research and Public Health* 15(7):1492, <https://doi.org/10.3390/ijerph15071492>.
- Darwin L, Vervoort S, Vollert E and Blustein S (2023) *Intergenerational trauma and mental health*. Cat. no. IMH 18, Australian Institute of Health and Welfare, Australian Government.
- David G, Wilson R, Yantarrnga J, von Hippel W, Shannon C and Willis J (2018) *Health benefits of going On-Country*, The Lowitja Institute.
- DHAC (Department of Health and Aged Care) (2019) *Physical activity and exercise guidelines for all Australians*, DHAC Australian Government, accessed 12 September 2023. <https://www.health.gov.au/topics/physical-activity-and-exercise/physical-activity-and-exercise-guidelines-for-all-australians>
- DHAC (2021a) *National Aboriginal and Torres Strait Islander Health Plan 2013–2023*, accessed 4 September 2023. <https://www.health.gov.au/sites/default/files/documents/2021/02/national-aboriginal-and-torres-strait-islander-health-plan-2013-2023.pdf>
- DHAC (2021b) *National Preventive Health Strategy 2021–2030*, DHAC, Australian Government.
- DHAC (2022) *National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework and Implementation Plan 2021–2031*, Commonwealth of Australia.
- Department of Health and Human Services Victoria (2019) *Victorian Public Health and Wellbeing Plan 2019–2023*, Victorian Government.
- English M, Wallace L, Evans J, Diamond S and Caperchione CM (2021) 'The impact of sport and physical activity programs on the mental health and social and emotional wellbeing of young Aboriginal and Torres Strait Islander Australians: a systematic review', *Preventive Medicine Reports* 25:101676, <https://doi:10.1016/j.pmedr.2021.101676>.
- Fredericks B, Longbottom M, McPhail-Bell K and Worner F (2016) *Dead or Deadly report: Waminda Aboriginal Women's Health Service*, CQ University, Rockhampton.
- Garvey G, Anderson K, Gall A, Butler TL, Whop LJ, Arley B, Cunningham J, Dickson M, Cass A, Ratcliffe J, Tong A and Howard K (2021) 'The fabric of Aboriginal and Torres Strait Islander wellbeing: a conceptual model', *International Journal of Environmental Research and Public Health* 18(15):7745.
- Gee G, Dudgeon P, Schultz C, Hart A and Kelly K (2014) 'Chapter 4. Aboriginal and Torres Strait Islander social and emotional wellbeing and mental health', in Dudgeon P, Milroy M and Walker R (eds) *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*, 2nd edn, Department of the Prime Minister and Cabinet, Australian Government.

Gidgup MJR, Kickett M, Weselman T, Hill K, Coombes J, Ivers R, Bowser N, Palacios V and Hill A-M (2021) 'Barriers and enablers to older Indigenous people engaging in physical activity—a qualitative systematic review', *Journal of Aging and Physical Activity* 30(2):340–352, <https://doi:10.1123/japa.2020-0465>.

Government of Western Australia Department of Health (2015) *WA Aboriginal Health and Wellbeing Framework 2015–2030*, WA Health, Government of Western Australia, accessed 4 September 2023. <https://www.health.wa.gov.au/Improving-WA-Health/About-Aboriginal-Health/WA-Aboriginal-Health-and-Wellbeing-Framework-2015-2030>

Gray C, Macniven R and Thomson N (2013) 'Review of physical activity among Indigenous people', *Australian Indigenous HealthInfoNet*, University of Sydney, 13(1):1–9.

Heard TR, McGill K, Skehan J and Rose B (2022) 'The ripple effect, silence and powerlessness: hidden barriers to discussing suicide in Australian Aboriginal communities', *BMC Psychology* 10(1):23, <https://doi:10.1186/s40359-022-00724-9>.

Kairuz CA, Casanelia LM, Bennett-Brook K, Coombes J and Yadav UN (2021) 'Impact of racism and discrimination on physical and mental health among Aboriginal and Torres Strait islander peoples living in Australia: a systematic scoping review', *BMC Public Health* 21(1):1302, <https://doi:10.1186/s12889-021-11363-x>.

Kiran A and Knights J (2010) 'Traditional Indigenous Games promoting physical activity and cultural connectedness in primary schools — cluster Randomised Control Trial', *Health Promotion Journal of Australia* 21(2):149–51, <https://doi:10.1071/he10149>. PMID: 20701567

Lansbury N, Redmond AM and Nona F (2022) 'Community-led health initiatives for Torres Straits Island communities in a changing climate: implementing core values for mitigation and adaptation', *International Journal of Environmental Research and Public Health* 19(24):16574, <https://doi.org/10.3390/ijerph192416574>

Macniven R, Canuto K, Wilson R, Bauman A and Evans J (2019) 'The impact of physical activity and sport on social outcomes among Aboriginal and Torres Strait Islander people: a systematic scoping review', *Journal of Science and Medicine in Sport* 22(11):1232–1242, <https://doi.org/10.1016/j.jsams.2019.06.017>.

Macniven R, de Castella R, Seriat EB, Hunt N and Bauman AE (2018a) 'Bright spots, physical activity investments that work: Indigenous Marathon Foundation', *British Journal of Sports Medicine* 52(20):1302–1303, <http://dx.doi.org/10.1136/bjsports-2017-098859>.

Macniven R, Elwell M, Ride K, Bauman A and Richards J (2017) 'A snapshot of physical activity programs targeting Aboriginal and Torres Strait Islander people in Australia', *Health Promotion Journal of Australia* 28(3):185–206, <https://doi.org/10.1071/HE16036>.

Macniven R, Plater S, Canuto K, Dickson M, Gwynn J, Bauman A and Richards J (2018b) 'The “ripple effect”: health and community perceptions of the Indigenous Marathon Program on Thursday Island in the Torres Strait, Australia', *Health Promotion Journal of Australia* 29(3):304–313, <https://doi.org/10.1002/hpja.43>.

- Macniven R, Stanley RM, Biles B, Dumuid D, Olds T, Okely AD, Chandler P and Evans J (2022) 'Parent wellbeing, family screen time and socioeconomic status during early childhood predict physical activity of Aboriginal and Torres Strait Islander children at ages 8–13', *Journal of Science and Medicine in Sport* 25(11):896–902, <https://doi.org/10.1016/j.jsams.2022.09.166>.
- Malseed C, Nelson A and Ware R (2014a) 'Evaluation of a school-based health education program for urban Indigenous young people in Australia', *Health*, 6(7):587–597, <http://dx.doi.org/10.4236/health.2014.67077>.
- Malseed C, Nelson A, Ware R, Lacey I and Lander K (2014b) 'Deadly Choices™ community health events: a health promotion initiative for urban Aboriginal and Torres Strait Islander people', *Australian Journal of Primary Health* 20(4):379–383, <https://doi.org/10.1071/PY14041>.
- Marmot M (2011) 'Social determinants and the health of Indigenous Australians', *Medical Journal of Australia*, 194(10):512–513, <https://doi.org/10.5694/j.1326-5377.2011.tb03086.x>.
- Martin K and Mirraboopa B (2003) 'Ways of knowing, being and doing: A theoretical framework and methods for indigenous and indigenist research', *Journal of Australian Studies* 27(76):203–214, <https://doi.org/10.1080/14443050309387838>.
- May T, Dudley A, Charles J, Kennedy K, Mantilla A, McGillivray J, Wheeler K, Elston H and Rinehart NJ (2020) 'Barriers and facilitators of sport and physical activity for Aboriginal and Torres Strait Islander children and adolescents: a mixed studies systematic review', *BMC Public Health* 20(1):601, <https://doi.org/10.1186/s12889-020-8355-z>.
- McPhail-Bell K, Appo N, Haymes A, Bond C, Brough M and Fredericks B (2017) 'Deadly Choices empowering Indigenous Australians through social networking sites', *Health Promotion International* 33(5):770–780, <https://doi.org/10.1093/heapro/dax014>.
- Nakata MN (2007) *Disciplining the savages, savaging the disciplines*, Aboriginal Studies Press, Australian Institute of Aboriginal and Torres Strait Islander Studies, Australian Government.
- Newton DC, Day A, Gillies C and Fernandez E (2015) 'A review of evidence-based evaluation of measures for assessing social and emotional well-being in Indigenous Australians', *Australian Psychologist* 50(1):40–50, <https://doi.org/10.1111/ap.12064>.
- Noble NE, Paul CL, Carey ML, Sanson-Fisher RW, Blunden SV, Stewart JM and Conigrave KM (2014) 'A cross-sectional survey assessing the acceptability and feasibility of self-report electronic data collection about health risks from patients attending an Aboriginal Community Controlled Health Service', *BMC Medical Informatics and Decision Making* 14(1):1–8, <https://doi.org/10.1186/1472-6947-14-34>.
- Nolan-Isles D, Macniven R, Hunter K, Gwynn J, Lincoln M, Moir R, Dimitropoulos Y, Taylor D, Agius T, Finlayson H, Martin R, Ward K, Tobin S and Gwynne K (2021) 'Enablers and barriers to accessing healthcare services for Aboriginal People in New South Wales, Australia', *International Journal of Environmental Research and Public Health* 18(6):3014, <https://doi.org/10.3390%2Fijerph18063014>.
- NSW Health (2022), NSW Healthy Eating and Active Living Strategy: preventing overweight and obesity in New South Wales 2022–2032, NSW Health, NSW Government, accessed 18 September 2023. <https://www.health.nsw.gov.au/heal/Pages/nsw-healthy-eating-strategy.aspx#:~:text=It%20outlines%20our%20steps%20for,well%20over%20the%20next%20decade>

- Pearson O, Schwartzkopff K, Dawson A, Hagger C, Karagi A, Davy C, Brown A, Braunack-Mayer A (2020), on behalf of the Leadership Group guiding the Centre for Research Excellence in Aboriginal Chronic Disease Knowledge Translation and Exchange (CREATE), 'Aboriginal community controlled health organisations address health equity through action on the social determinants of health of Aboriginal and Torres Strait Islander peoples in Australia', *BMC Public Health* 20(1):1859, <https://doi.org/10.1186/s12889-020-09943-4>.
- Peralta LR and Cinelli RL (2016) 'An evaluation of an Australian Aboriginal controlled-community organization's remote sports-based programme: a qualitative investigation', *Sport in Society* 19(7): 973–989, <https://doi.org/10.1080/17430437.2015.1096247>.
- Peralta L, Cinelli R and Bennie A (2018) 'Mentoring as a tool to engage Aboriginal youth in remote Australian communities: a qualitative investigation of community members, mentees, teachers, and mentors' perspectives', *Mentoring & Tutoring: Partnership in Learning* 26(1):30–49, <https://doi.org/10.1080/13611267.2018.1445436>.
- PM&C (Department of the Prime Minister and Cabinet) (2017) *National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing 2017–2023*, PMC, Australian Government.
- Pressick EL, Gray MA, Cole RL and Burkett BJ (2016) 'A systematic review on research into the effectiveness of group-based sport and exercise programs designed for Indigenous adults', *Journal of Science and Medicine in Sport* 19(9):726–732, <https://doi.org/10.1016/j.jsams.2015.11.005>.
- Productivity Commission (2020) *SCRGSP, Overcoming Indigenous disadvantage: key indicators 2020*, produced by the Productivity Commission for the Review of Government Service Provision, Productivity Commission, Australian Government.
- Rigney L-I (1999) 'Internationalization of an Indigenous anticolonial cultural critique of research methodologies: a guide to Indigenist research methodology and its principles', *Wicazo Sa Review* 14(2):109–121, <https://doi.org/10.2307/1409555>.
- Roberts J, Gao Y, Kildea S and Roe Y (2022) *Dead or Deadly Aboriginal Women's Health and Wellbeing Program evaluation report*, Charles Darwin University.
- Rynne S and Rossi T (2012), *The impact of Indigenous community sports programs: the case of surfing*, Australian Sports Commission, Australian Government, <https://doi.org/APO-32964>.
- Productivity Commission (2020), *Overcoming Indigenous disadvantage: key indicators 2020*, produced by the Productivity Commission for the Review of Government Service Provision, Productivity Commission, Australian Government.
- Sherwood JM (2010) *Do no harm: decolonising Aboriginal health research* [Doctor of Philosophy thesis] University of New South Wales.
- SVA (Social Ventures Australia) (2018) *The Indigenous Marathon Project baseline social return on investment analysis*, produced for the Indigenous Marathon Foundation, SVA, Sydney, accessed 3 September 2023. [https://imf.org.au/wp-content/uploads/2020/06/2018-IMP-SROI-Summary\\_vFinal-16.05.2018.pdf](https://imf.org.au/wp-content/uploads/2020/06/2018-IMP-SROI-Summary_vFinal-16.05.2018.pdf)



Sushames A, van Uffelen JGZ and Gebel K (2016) 'Do physical activity interventions in Indigenous people in Australia and New Zealand improve activity levels and health outcomes? A systematic review', *International Journal of Behavioral Nutrition and Physical Activity* 13(1):129, <https://doi.org/10.1186/s12966-016-0455-x>.

Taylor S, McDermott R, Thompson F and Usher K (2017) 'Depression and diabetes in the remote Torres Strait Islands', *Health Promotion Journal of Australia* 28(1):59–66, <https://doi.org/10.1071/pe15118>.

Thorpe A, Anders W and Rowley K (2014) 'The community network: an Aboriginal community football club bringing people together', *Australian Journal of Primary Health* 20(4):356–64, <https://doi.org/10.1071/py14051>.

Verbunt E, Luke J, Paradies Y, Bamblett M, Salamone C, Jones A and Kelaher M (2021) 'Cultural determinants of health for Aboriginal and Torres Strait Islander people – a narrative overview of reviews', *International Journal for Equity in Health* 20(1):181, <https://doi.org/10.1186/s12939-021-01514-2>.

Weir J, Stacey C and Youngentob KN (2011) *The benefits associated with caring for Country: literature review*, prepared for the Department of Sustainability, Environment, Water, Population and Communities, Australian Institute of Aboriginal and Torres Strait Islander Studies, Australian Government.

WHO (World Health Organization) (2013) *Mental Health Action Plan 2013–2020*, WHO, Geneva.

WHO (2019), *The Global Action Plan on Physical Activity 2018–2030: more active people for a healthier world*, WHO, Geneva.

This article summarises existing evidence on physical activity and First Nations SEWB. It describes the policy context and actions as well as program approaches implemented with First Nations adults and children living in Australia.



Stronger evidence,  
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