

The Economic Benefits of Sport on the Mental and Physical Wellbeing of Veterans in Australia

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TABLE OF CONTENTS

	Page
1 About this Report	3
2 Executive Summary	4
3 Sport and the Defence Community in Australia	
3.1 Overview of Australia’s Defence Community Health and Wellbeing	6
3.1.1 Mental Health Impacts	7
3.1.2 Physical Health Impacts	11
3.1.3 Social Health Impacts	12
3.2 Sport in Australia	
3.2.1 Overview of Sport in Australia	15
3.2.2 Australia Sport Megatrends	16
3.2.3 The Value of Sport to Australia	17
3.2.3 Cost of Sport in Australia	18
3.3 Sport in the Australian Defence Force	
3.3.1 Sport in the Defence Culture	19
3.3.2 Sport in the Veteran Community	19
4 Economic Costs of Wellbeing for Veterans in Australia	
4.1 The Economic Costs of Mental Health for Veterans in Australia	21
4.1.1 Direct Costs Associated with Mental Health of Veterans in Australia	22
4.1.2 Indirect or Opportunity Costs Associated with Mental Health of Veterans in Australia	23
4.2 The Economic Costs of Physical Health for Veterans in Australia	25
4.2.1 Direct Costs Associated with Physical Health of Veterans in Australia	25
4.2.2 Indirect or Opportunity Costs Associated with Physical Health of Veterans in Australia	26
4.3 The Economic Costs of Social Health for Veterans in Australia	27
4.3.1 Direct Costs Associated with Social Health of Veterans in Australia	27
4.3.2 Indirect or Opportunity Costs Associated with Social Health of Veterans in Australia	28
5 Economic Benefits of Investing in Sport for Australia’s Defence Community	
5.1 Benefits of Sport on Health and Wellbeing of Veterans in Australia	29
5.2 Potential Return on Investment of Sport on Veterans Mental Health in Australia	34
6 Opportunities of Sport for Australia’s Defence Community	35
7 References	36
8 Appendix	39

1. ABOUT THIS REPORT

The benefits of sport on the health and wellbeing of an individual have long been researched in the scientific and academia fields, as well as recognised by society at large. Various studies have been conducted on the qualitative effects of sport on people's health and wellbeing. However, there is limited research on the quantitative economic impacts of sport on the physical, mental and social wellbeing of Australian Defence Force (ADF) members and veterans.

To further understand the benefits relating to sport for the Defence community and their economic impacts, Invictus Australia (IA) has partnered with Accenture Australia to undertake the economic analysis on the benefits of sport on veterans mental and physical wellbeing. This study aims to:

- Provide insight into the economic effects of sport on health and wellbeing for veterans in Australia
- Understand the economic cost of mental health related conditions for veterans in Australia
- Research the potential economic opportunity through increased sport and recreation
- Assess the potential return on investment of sport as upstream intervention to address mental health related conditions for veterans in Australia

These findings can provide valuable insights to both the Defence ecosystem and the sports sector by highlighting the broader economic value of sport. Understanding this information can guide the allocation and prioritisation of resources to maximise the benefits for wounded, injured, and ill serving and former veterans and their families, ensuring long-term economic gains and improved overall wellbeing.

This study has been conducted through secondary research and analysis based on literature reviews, not restricted by publication date, across researches and publications from sources including but not limited to the Department of Veterans' Affairs (DVA), Australian Government Department of Defence, Australian Bureau of Statistics (ABS), Australian Institute of Health and Welfare (AIHW), Royal Commission into Defence and Veteran Suicide, and other military-, healthcare- and sporting-related organisations.

The economic analysis is also done based on data sources from 2021-2022 and focused on the mental health and psychological related conditions for veterans in Australia. The outcomes of this analysis will complement the other benefits from physical and social health described in this report, to communicate the overall economic benefit of connecting Defence members and veterans through sport.

Specific terms will be used such as 'Defence community', 'veteran' and 'former serving member' to differentiate the cohorts described in the report. 'Defence community' will be used to refer broadly to ADF current and former serving personnel and their families that support them. In line with the latest definition, 'veteran' will refer to a person who has any experience in the ADF including current (permanent and reserve) and former serving personnel, while the term 'former serving member' will be used to describe ex-serving ADF personnel only.

The sporting activity described in this report refers to coordinated and organised activity that requires some degree of physical exertion, including its social elements. Non-sporting physical activities like active recreation and exercise will also be referenced given the rising interest in these activities post the COVID-19 pandemic. Benefits from both sporting and physical activities of all forms for veterans will also be considered and described in relevant sections of the report.

2. EXECUTIVE SUMMARY

This report explores the economic benefits of sport on the mental and physical wellbeing of ADF veterans, as well as aspects of their social wellbeing. It evaluates the significant role that sports play in enhancing the mental, physical, and social health of veterans and their families, while presenting the potential return on investment for incorporating sports as an upstream intervention for mental health challenges among veterans. Key findings include:

Mental Health Benefits: Veterans face high rates of mental health challenges, including post-traumatic stress disorder (PTSD), anxiety, depression, and substance abuse. About 46% of veterans experience a mental health condition within a year of transitioning from service. Research highlights the profound role of sports in reducing symptoms of these conditions by fostering resilience, reducing isolation, and promoting positive social connections. Sports is a key protective factor against suicide, a prevalent issue among veterans, with three veteran suicides occurring every fortnight in Australia.

Economic Cost of Mental Health: The economic impact of veterans' mental health conditions in Australia is estimated at \$5.02 billion based on data from 2021-22. Of this, 88% comprises opportunity costs, including productivity loss, informal care, and premature death by suicide due to mental health issues. Sports-based interventions have the potential to mitigate these costs by improving veterans' mental health outcomes and reducing the burden of mental health-related conditions.

Physical Health Benefits: Veterans are at higher risk for physical health issues due to the demands of military service. Common conditions include musculoskeletal injuries, cardiovascular diseases, and arthritis, many of which require long-term management. Participation in sports improves physical fitness, reduces the severity of chronic conditions, and encourages healthier lifestyles post-service. Engaging in regular physical activities via structured sports programs can prevent further deterioration of veterans' health, while targeted sports programs help veterans maintain mobility and manage chronic pain – both reducing healthcare costs. Sports also serve as a rehabilitative tool for wounded or injured veterans, helping them regain physical functionality and mental resilience.

Social Health Benefits: Nearly 20% of veterans experience loneliness and 10% reported social isolation. Some veterans often struggle to reintegrate into civilian communities after leaving the structured environment of the military, and sports enable them to build social connections, re-establish a sense of camaraderie and obtain peer support via team sports participation, and improve their sense of belonging. Feelings of isolation and loneliness are closely linked to poor mental and physical health, and sport is an essential tool for social engagement. Encouraging veteran participation in organised and informal sports, or volunteering in it, has the potential to strengthen community ties and improve social cohesion among veterans and their families, especially after transitioning into civilian life.

Potential Return on Investment: Investing in sports as an upstream intervention on veterans' mental health has a potential return on investment of 2.5, implying that each dollar invested into veteran-focused sports generates about two and a half times savings to the Australian economy, in terms of mental health costs. For example, by increasing the proportion of veterans that are physically active by 10 percentage points can reduce mental health costs by approximately \$230 million.

Opportunity Areas: There is potential for greater collaboration between government bodies, local communities, and veteran organisations to expand sports programs tailored to veterans' unique needs. Together, the programs can be collectively delivered at scale and with efficiencies, so more veterans and their families can benefit from the physical, mental, and social improvements that sports offer.

In conclusion, sports play a critical role in addressing the multifaceted health challenges faced by ADF veterans, with significant positive effects on veterans' quality of life that also extends to their families and communities. Investing in sport as an upstream intervention for veterans can foster long-term health benefits for veterans and their families, ultimately providing significant economic and social returns for the broader Australian community.

THE STATE OF PLAY

Australia has **581,139** veterans¹

6,696 veterans transitioned from the ADF in 2022, with an upward trend forecasted²

Transitions from the military are:
62% Voluntary
26% Medical

THE TROUBLING STATISTICS



1,677 reported veteran suicides from 1997-2021³



3 DEATHS per fortnight (avg.) by suicide over the last decade³



49% of mental health claims to DVA are related to PTSD²



Nearly **1 in 10** veterans were socially isolated⁴



Nearly **1 in 5** veterans were lonely⁴



5% transitioned veterans experience homelessness yearly⁵



POSITIVE FAMILY CONNECTIONS are a key protective factor against suicidal behaviour

IMPACT OF SPORT IN AUSTRALIA



41% of Australians participate in a sport-related activity at least once a week⁶

Minimum physical activity reduces:⁴



burden of anxiety by up to **6.5%**



burden of depression by up to **4.4%** (in 25 years' time)

Australians continue to exercise for the social and mental health benefits. Both are still a greater motivator now than before the COVID-19 pandemic.⁶

ECONOMIC IMPACT

Approx. **\$5.02 bn** total economic cost of veterans' mental health in Australia

2.5x return per dollar invested into sport as upstream intervention on veterans' mental health

There is potential for greater collaboration between government bodies, local communities, and veteran organisations to collectively deliver sports programs at scale tailored to the unique needs of veterans and their families.

Footnote:

1. ABS Census 2021
2. Department of Veterans' Affairs (DVA)
3. Royal Commission into Defence and Veteran Suicide Report
4. Australian Institute of Health and Welfare (AIHW)
5. Specialist Homelessness Services
6. Clearinghouse for Sport, AusPlay

3.1 OVERVIEW OF AUSTRALIA'S DEFENCE COMMUNITY HEALTH AND WELLBEING

The Australian Defence Force (ADF)

ADF | Who we are

"Defence's primary role is to defend Australia and its national interests, promote security and stability, and support the Australian community as directed by the Government"

Source: Australian Government Department of Defence

The Australian Defence Force members are involved in a wide range of operations, including humanitarian assistance, disaster response, and border security. The ADF comprises three branches – the Royal Australian Navy (RAN), the Australian Army, and the Royal Australian Air Force (RAAF) – forming the military arm of the Australian government. The ADF is responsible for defending the nation's interests, contributing to regional stability, and supporting international peacekeeping efforts. Its strategic capabilities include naval power, air defence, ground combat forces, and cyber warfare capabilities. It actively engages in joint operations and exercises with allied nations, particularly through regional defence agreements.

Highlighted in the Royal Commission into Defence and Veteran Suicide Report ('Royal Commission Report'), military service requires a significant shift in both mindset and behaviour, as individuals adapt to the demands of a highly structured and disciplined environment. This transformation is not only physical but also deeply psychological, as service members internalise the core values of Defence. Defence explains that military character is shaped through consistent, intentional, and repeated practice over time.

Veterans

A veteran refers to a person who has any experience in the ADF including current (permanent and reserve) and former serving personnel (AIHW 2023, Australian Veterans' Recognition Act 2019). Based on the ABS 2021-22 Census, there are 496,276 members who are part of veteran community supported by various programs throughout their life during and after transition out of the military. The transition from military to civilian life is a major focus for veterans in Australia. Many face challenges such as finding meaningful employment, adjusting to life within the civilian society, commonly referred to as 'culture shock', and managing physical or mental health issues that may have arisen during service. Veterans may continue to serve as Reserve members, with their level of involvement varying according to their personal circumstances, reflecting their ongoing commitment as part of the 'Defence Community'.

Department of Veteran Affairs

The DVA plays a central role in providing healthcare, compensation, rehabilitation, and other forms of assistance to veterans and their families. Beyond healthcare and rehabilitation, the DVA offers a wide spectrum of support services, including financial compensation for service-related injuries or illnesses, and access to critical mental health care. Veterans can benefit from specialised counselling, peer support programs, and initiatives aimed at fostering social connection and emotional wellbeing. The DVA also focuses on empowering veterans through training, career development, and employment assistance, helping them build new opportunities in civilian life. Additionally, the DVA provides resources for families, recognising their vital role in a veteran's recovery and wellbeing. With this comprehensive support network, the DVA aims to create a solid foundation for veterans and their loved ones, enabling them to navigate the challenges of post-service life successfully.

Ex-Service Organisations (ESOs)

ESOs play a vital role in supporting veterans as they transition back to civilian life, offering a range of services such as welfare assistance, employment support, advocacy, and community building. These organisations are often deeply rooted in local communities, creating a supportive environment that fosters camaraderie and understanding.

A notable initiative within many ESOs is the use of sports and physical activities as rehabilitation tools, promoting mental and physical wellbeing while helping veterans build social connections, reduce feelings of isolation, and enhance their reintegration into civilian life. Some ESOs like Invictus Australia, Mates4Mates and Soldier On aim to reconnect veterans with their peers, tailoring programs and initiatives to the needs of veterans to effectively address specific challenges faced by this community.

ESOs have a unique opportunity to expand their impact and accessibility for veterans nationwide. While many are independent and localised, the grassroots nature of ESOs allows them to be deeply embedded in the veteran communities and responsive to local needs. Opportunities for close collaboration across these organisations have the potential to optimise resource capacities and local expertise, helping to scale programs for wider reach of audiences (such as veterans, their families, the broader community) and maximising cost efficiencies for program coordination and delivery.

Families of Veterans

Service life, transition and post-service life affects all facets of family life in the Defence community. The Royal Commission Report highlights the importance of families and their support for current and former serving members that is often a significant protective factor against suicide and suicidality (Royal Commission, 2024).

Research shows that strong social support and family connectedness can reduce psychological symptoms and protect against suicidal thoughts in the Defence community. In contrast, relationship breakdowns, family violence, and poor social relationships are linked to increased suicidality. Hence, maintaining positive family connections is a key protective factor against suicidal behaviour, reinforcing the importance of healthy relationships for mental wellbeing in Defence communities. Additionally, the quality of family relationships plays a crucial role in the mental health of veterans, especially those transitioning to civilian life, as supportive family dynamics acts as a protective buffer against stress and negative mental health outcomes (Van Hooff, M., 2024).

Comprehensive support for family unit is important to ensure veterans' overall wellbeing is also adequately supported. Defence recognises the vital role and sacrifices of ADF families, the unique nature of family and community life in the ADF, as well as the potential challenges families face when they transition from the military. The Royal Commission Report highlighted that families are not only crucial in supporting former serving ADF members, but they also experience emotional and practical difficulties during the transition. Based on the Transition Taskforce (2018), findings show that transition to civilian life can be an uncertain time for families, including family dynamics changes related to new employment, housing and financial arrangements. Therefore, a strong transition support system that caters to both veterans and their families is critical, and sport can play a valuable role in this process. The benefits of sport on veterans and their family's health and wellbeing is further explored in Section 5.1 of this report.

3.1.1 Mental Health Impacts

Anchoring on the growing awareness of the need for comprehensive support systems tailored to veterans and their families, efforts to address mental health issues, improve access to healthcare, and enhance social services will need to be included as mental health remains a critical issue among veterans. Some ADF members and veterans face profound mental health challenges, characterised by elevated rates of anxiety, depression, post-traumatic stress disorder (PTSD), and substance use disorders (SUD). These interconnected conditions highlight the urgent need for integrated mental health care strategies that holistically address the complex needs of veterans:



Anxiety and Depression: ADF members and veterans often experience anxiety and depression due to the psychological strain associated with military service (Lim et al., 2022). Factors contributing to these conditions include the intense stress of combat, extended periods of deployment, and the unique challenges of transitioning back to civilian life. These experiences can lead to persistent feelings of sadness, worthlessness, excessive worry, and an inability to engage in daily activities (Moore et al., 2023).



Post-Traumatic Stress Disorder (PTSD): Many ADF members and veterans endure severe psychological trauma from combat experiences, training accidents, or other service-related events that leave deep, enduring psychological scars (DVA, 2022). PTSD can manifest as recurrent, intrusive memories of traumatic events, nightmares, hypervigilance, and emotional numbing (Mann et al., 2023). These symptoms can impact their ability to maintain relationships, hold steady employment, or basic daily functions, creating a cycle of distress that can be challenging to break.

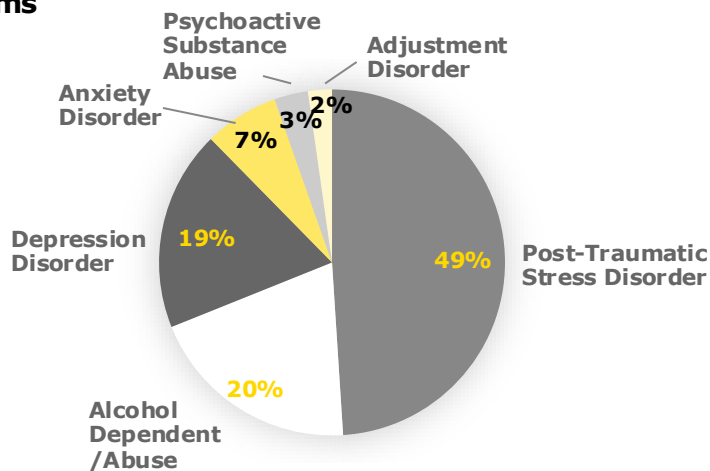


Substance Use Disorders (SUD): Substance use, including alcohol and drugs, is frequently a coping mechanism for veterans struggling with anxiety, depression, PTSD, and other emotional pain (Teeters et al., 2017). The use of substances may temporarily alleviate overwhelming symptoms, but it often exacerbates mental health problems over time, leading to dependency and further impairing the individual's ability to recover (NIMH, 2024).

The Royal Commission Report has investigated the high suicide rates among ADF personnel, with 1,677 suicides confirmed between 1997 and 2021, a number that is more than 20 times the number of people killed in active duty over the same period. The actual figure is believed to exceed 3,000. Male veterans in combat roles face significantly higher suicide risks compared to the general population, and female veterans are even more at risk. The Royal Commission's Final Report in 2024 made 122 recommendations to address systemic and cultural failures contributing to this ongoing crisis.

Mental Health Claims

(Top 20 Accepted Claims)



Source: Department of Veteran's Australia. Accepted Conditions for Veterans of Selected Conflicts. March 2024.


The number of mental health related health claims submitted to DVA shows the top 3 mental health claims is: PTSD, alcohol dependency and depression disorder. PTSD take up almost half of the mental health claims, indicating the severity and focus will require around this area.

Anxiety and Depression


The mental health impacts of anxiety and depression on veterans can be profound, affecting multiple aspects of their emotional and psychological well-being. Anxiety in veterans often manifests as hypervigilance, irritability, and a persistent sense of dread, which can make it difficult for them to relax or feel safe even in non-threatening environments. This heightened state of alertness, commonly linked to experiences in combat or high-stress roles, may also lead to sleep disturbances such as insomnia or nightmares, further exacerbating their anxiety. Over time, these symptoms can wear down a veteran's mental resilience, leading to chronic stress, exhaustion, and emotional instability. 21% of former serving male defence members are likely to have a long-term anxiety related disorders, this is twice as likely as the general population of males (AIHW,2024).

- Depression can also deeply affect many veterans' sense of self-worth and connection to others. Feelings of guilt, shame, or helplessness often surface, particularly in some veterans who may struggle with the emotional burden of past military actions or the perceived loss of purpose after leaving service. This emotional weight can make it difficult to engage in daily activities, resulting in withdrawal from family, friends, and social circles. A number of veterans with depression may also experience cognitive difficulties such as impaired memory and an inability to focus, further limiting their ability to function in work or personal environments. Almost half (46.4%) of ADF members who transitioned from full-time service had experienced a mental health condition in the previous 12 months, with anxiety disorders being the most common (Van Hooff et al, 2014).

The Royal Commission into Defence and Veteran Suicide report highlights one of the primary concern is the intersection of mental health issues with the military justice system. The report suggests that members experiencing mental health struggles may often find themselves interacting with the military justice system due to behavioural changes, such as absenteeism, reduced work performance, or alcohol abuse. These interactions can create a downward mental health spiral, exacerbating stress and triggering further disciplinary action (Royal Commission, 2024).



46.4% of veterans have experienced a mental health condition in the previous 12 months



21% of former serving male defence members are likely to report having a long-term anxiety related disorders

Source: Health of Veterans, AIHW. Transition and Wellbeing Research Programme.

Post-Traumatic Stress Disorder (PTSD)

Mental Health Prevalence study found that a quarter (24.9%) of transitioned ADF members were estimated to have met the criteria for Post-Traumatic Stress Disorder (PTSD) in their lifetime (DVA, 2018). PTSD is a significant issue among military veterans, often resulting from their exposure to combat and life-threatening situations. The trauma associated with such experiences can lead to symptoms like flashbacks, nightmares, severe anxiety, and emotional numbness. Veterans might also experience hypervigilance, irritability, and difficulties adjusting to civilian life, which can manifest soon after returning home or develop over time (Reisman, 2016).

PTSD is one of the most common mental health issue of current and former Defence members.

Second largest number (9%) of accepted health conditions for veteran in Australia

Source: Department of Veterans Australia

The correlation between combat experiences and PTSD is significant and multifaceted. Research indicates that veterans exposed to combat are at a much higher risk of times more likely developing PTSD compared to those with no combat exposure (Institute of Medicine, 2012). The severity and frequency of traumatic events play a crucial role; veterans with prolonged or repeated deployments face a higher cumulative risk of PTSD. The impact of these experiences is compounded by the stressful conditions of combat, which can disrupt normal psychological processing and coping mechanisms.

Additionally, the military culture, which emphasises resilience and self-reliance, may inhibit some veterans from seeking help or acknowledging their struggles with PTSD. This cultural aspect can lead to underreporting and delayed treatment, further entrenching the symptoms. The high prevalence of PTSD among veterans underscores the profound psychological effects of combat and other traumatic experiences, highlighting the need for a deeper understanding of these impacts and their long-term consequences.

Substance Use Disorder (SUD)

47.5%

of transitioned ADF members had experienced alcohol use disorder over their lifetime

28.4%

of suicide deaths among male ADF members are linked to alcohol consumption and intoxication

12.9%

of transitioned members had experienced alcohol use disorder in the previous 12 months

Source: Health of Veterans, AIHW. Transition and Wellbeing Research Programme.

Substance use disorder (SUD) among veterans is closely tied to experiences of trauma and chronic pain, both of which are prevalent in this population. Veterans often encounter significant traumatic events during their service, which can lead to emotional and psychological distress. This distress may prompt the use of substances such as alcohol, opioids, or other drugs to manage symptoms or seek temporary relief. The substances are used to cope with the stress and emotional fallout from these traumatic experiences, even though this can exacerbate the issues in the long run. The Mental Health Prevalence estimated in 2018 that 12.9% of transitioned members had experienced alcohol use disorder in the previous 12 months, and 47.5% had experienced alcohol use disorder over their lifetime (Van Hooff et al, 2014).

Chronic pain, resulting from service-related injuries, is another critical factor influencing SUD among veterans. Veterans often rely on prescription medications, particularly opioids, to manage chronic pain from injuries sustained during military service (Rielly et al, 2023). Over time, the need for these medications can escalate, leading to misuse or addiction. The risk of dependency is heightened if pain management approaches do not effectively address the veteran's needs or if the medications have adverse effects.

The interaction between trauma and chronic pain creates a complex scenario that complicates the development and progression of SUD. Veterans experiencing both trauma and chronic pain may find themselves in a difficult cycle, where substance use initially provides relief but ultimately contributes to deeper health and behavioural issues. This cycle can make SUD a persistent and challenging issue, affecting many aspects of a veteran's life and overall well-being. AIHW highlights acute alcohol use and intoxication as risk factors for suicide, with acute alcohol consumption and intoxication being linked to 28.4% of suicide deaths among male ADF members (AIHW, 2023).

Mental Health Impacts to Family and Friends of the Defence Community

The mental health of veterans' families is profoundly affected by the unique challenges of military life, especially during the transition to civilian life. Partners of veterans often face increased levels of stress, anxiety, and depression. The Family Wellbeing Study 2018 shows that around 18% of partners of veterans experience high psychological distress, with similar rates of PTSD symptoms. Suicidal thoughts are also more common, with 18% reporting such thoughts, compared to 11% of partners of current service members.

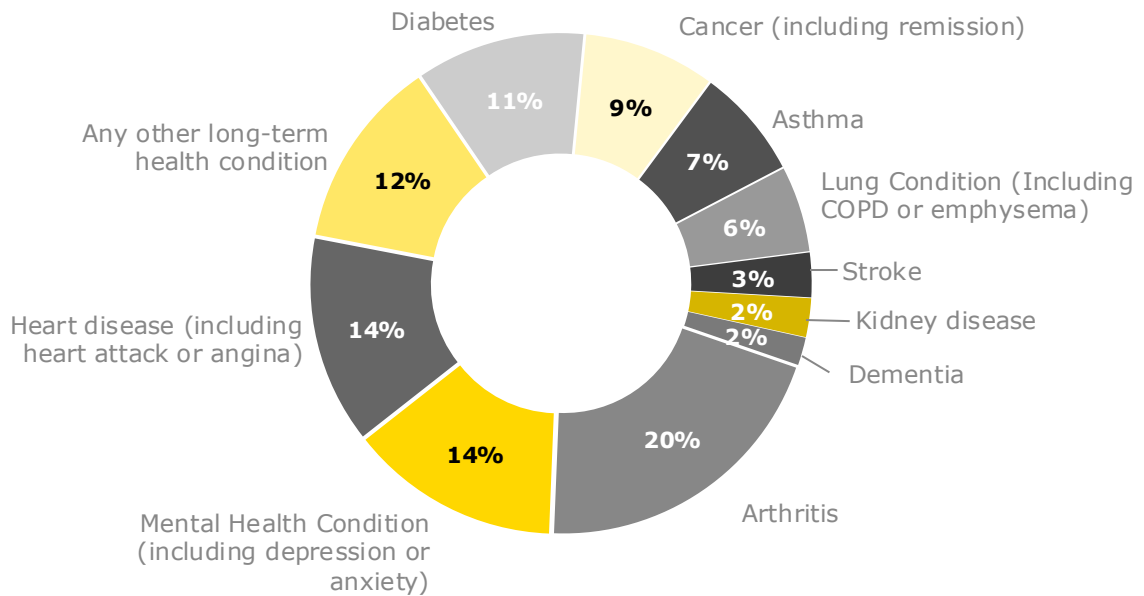
Despite these challenges, family and friends play a vital role in supporting veterans. They are often the first to notice changes in behaviour or mood in veterans, which is crucial for early intervention. By offering emotional support, reassurance, and encouragement, they help create a safe space for veterans to open up about their mental health struggles, easing the burden of dealing with issues like anxiety, depression, or substance use disorders alone.

Beyond emotional support, loved ones assist veterans in navigating the mental healthcare system. They often advocate for veterans, help arrange appointments, and guide them through accessing care. This practical assistance, coupled with efforts to reduce the stigma around mental health, creates an environment where veterans feel understood and supported, making them more likely to seek and stay engaged in treatment.

3.1.2 Physical Health Impacts

The physical health of Australian veterans is a significant focus for both government services and support organisations. The physical health of Australian veterans is heavily influenced by their military service, with a range of long-term conditions resulting from the physical demands of their roles. Key health concerns include service-related injuries, arthritis, back problems, cancer, diabetes, and cardiovascular disease, all of which significantly impact veterans' quality of life and require ongoing management.

Physical Health Conditions of Australian Veterans



Source: Australian Bureau of Statistics. Census of Population and Housing: Services with the Australian Defence Force data summary, 2021.

The prevalence of various physical and mental health conditions among Australian veterans, reflect the long-term impact of military service on health. Veterans often experience higher rates of certain chronic conditions due to the physical and psychological demands of their service. Arthritis, the most common condition, may be linked to the physical strain and injuries sustained during military careers. Heart disease and other long-term health issues also stand out, emphasising the complex health challenges veterans face. Some of the physical health conditions of veterans are described below:

Service-Related Injuries and Conditions

Many Australian veterans suffer from service-related injuries due to the physically demanding nature of military life, leading to issues like fractures, sprains, and chronic pain, particularly in the knees, shoulders, and back. These injuries can limit mobility and daily activities long after leaving the service. Severe injuries, such as combat wounds, may result in long-term disabilities requiring specialised care.

Arthritis

Arthritis is common among veterans, often developing earlier due to the physical strain of military service, such as heavy lifting and repetitive motions. It mostly affects the knees, hips, and hands, causing chronic pain, stiffness, and reduced mobility, which can make daily activities difficult. The early onset of osteoarthritis is one of the most debilitating conditions veterans face after service, highlighting the long-term impact of military duties on joint health.

Back Problems

Back problems are common among Australian veterans due to the physical strain during military service, including heavy lifting and long periods of standing or marching. Many veterans suffer from conditions like herniated discs, sciatica, and spinal degeneration, which can severely affect their mobility and quality of life. Chronic back pain often requires long-term treatments such as physical therapy, pain management, or surgery. For many veterans, these back issues serve as a lasting reminder of the physical toll their service has taken.

Cancer

Veterans have higher cancer rates, especially those linked to hazardous exposures during service, such as asbestos, chemicals, or radiation. This puts them at increased risk for lung cancer, mesothelioma, and skin cancer. Lifestyle factors like smoking and alcohol use, which are more common among veterans, also elevate cancer risk. Early detection and treatment are crucial, but accessing timely cancer care can be difficult, particularly for veterans in rural or remote areas.

Diabetes

Diabetes is becoming more common among veterans, especially as they age. The shift from an active military lifestyle to a sedentary one can lead to weight gain and increase the risk of Type 2 diabetes. Veterans with diabetes often face complications like heart disease and nerve damage. Obesity after service also contributes to rising diabetes rates. Managing the condition requires medication, lifestyle changes, and regular check-ups, but many veterans, especially in remote areas, struggle to access the necessary care.

Cardiovascular Disease

Cardiovascular disease (CVD) is a major concern for aging veterans. Military life stress, physical exertion, and high-stress environments can lead to heart conditions later in life. Veterans are at higher risk of hypertension, heart disease, and stroke, especially with higher rates of smoking, alcohol use, and physical inactivity after service. Weight gain can further increase CVD risk. Managing CVD requires long-term care, including medication, lifestyle changes, and regular check-ups to prevent serious complications like heart attacks or strokes.

The physical health of Australian veterans is shaped by the long-term effects of service-related injuries and conditions, as well as the development of chronic diseases such as arthritis, back problems, cancer, diabetes, and cardiovascular disease. These conditions significantly impact veterans' quality of life and often require ongoing medical care and lifestyle adjustments to manage effectively. The cumulative physical toll of military service highlights the need for targeted healthcare and support systems for veterans throughout their post-service lives.

3.1.3 Social Health Impacts

Social health is the aspect of overall health and wellbeing that comes from connection. Veterans' experiences during and after military service influence not only their mental and physical health, but also their social health including social connections and overall quality of life. As veterans transition from military to civilian life, a significant number face social health challenges that impact their sense of belonging, mental and physical health, and ability to engage with the broader community.

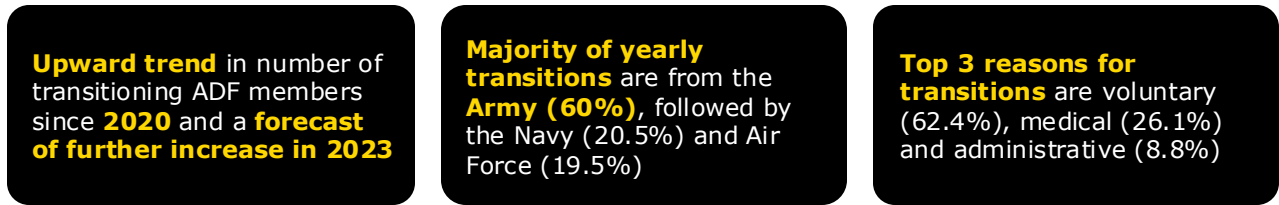
Transition from Military to Civilian Life

The DVA Transition Strategy 2023 defines 'transition' as the journey of an ADF former serving member and their family from an ADF service-centered life to a predominately civilian life. It goes beyond the point they transition from the ADF and is a journey of identity, a series of emotional and cultural adjustments, as well as possible adjustment and evolution of familial and social relations. Every transitioning member and their families will have their own diverse experiences and needs, with an associated time period that varies from person to person – therefore, a transition ecosystem that is integrated and responsive to the needs of those navigating it is critical to support the overall wellbeing of veterans and their families.

There is an upward trend in number of transitioning veterans since 2020, rising to 6,696 in 2022 and forecasted to further increase to 6,868 for 2023 as the employment environment and a range of operational and workforce factors continue to place pressure on the transition ecosystem. Majority of yearly transitions are from the Army, as it is the largest of the three Services arms (i.e., Navy and Air Force). The main reason for transitions is voluntary, followed by medical and administrative reasons, and the age when an ADF personnel transitions can also affect their transition experience and outcomes due to the unique challenges for respective cohorts.

The DVA Veteran Transition Strategy identified that it can be particularly difficult for some cohorts, especially those who are either transitioning:

- involuntarily for medical or other reasons,
- aged less than 30,
- of non-commissioned officer rank, or
- who have less than one year of service.



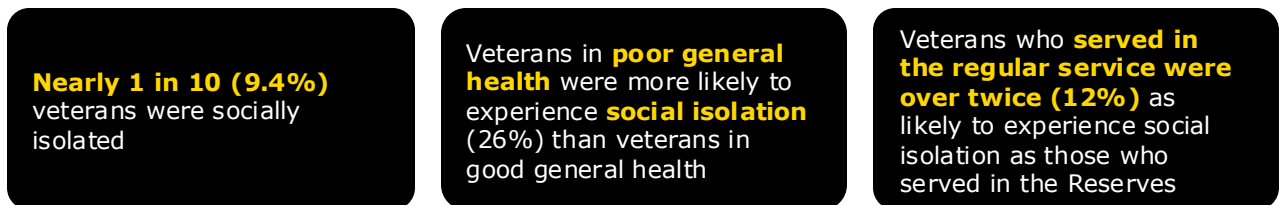
Source: DVA Veteran Transition Strategy, based on Defence data from previous 5 years up to 31 December 2022

The interim findings of the Royal Commission into Defence and Veteran Suicide highlighted that ADF members face significant issues such as social isolation, mental health challenges, and difficulties transitioning from military to civilian life. During deployment, ADF members often experience a strong sense of camaraderie, trust, and mateship, which helps guard against social isolation and loneliness. However, after transitioning to civilian life, some vulnerable subgroups of veterans may struggle with social connectedness and loneliness due to changes in their environment and structure.

Social Isolation

Recent research showed that nearly 1 in 10 veterans were socially isolated (AIHW 2023). The DVA Veteran Social Connectedness Report defines 'social isolation' as having objectively few social relationships or roles and infrequent social contact, such as the lack of relationships with family and friends on an individual level, and with society on a broader level. Veterans in poor general health were more likely to experience social isolation. For example, research showed that higher rates of social isolation were in cohorts of veterans with high psychological distress, poor mental and physical health.

Cohorts of veterans that are at a higher risk of social isolation also generally did not feel part of their local community, had infrequent social contact with others, or were not active members of clubs or associations, which leads to a struggle in finding a sense of belonging and building their own social networks in the civilian community. This poses a higher risk for some veterans when they re-enter civilian life due to the geographical mobility and frequent deployments associated with military service that may create difficulties for veterans to build and maintain social networks.



Source: Veteran Social Connectedness, AIHW 2023

The findings from the Royal Commission into Defence and Veteran Suicide indicate that former ADF members often struggle with feelings of social disconnection, which can be intensified by difficulties in establishing new relationships within civilian communities. Many veterans may find it challenging to connect with family, friends, and others who have not experienced military life and may lack understanding of its effects.

Loneliness

Recent research showed that nearly 1 in 5 veterans were lonely (AIHW 2023). The DVA Veteran Social Connectedness Report defines Loneliness as a 'subjective unpleasant or distressing feeling of a lack of connection to other people, along with a desire for more, or more satisfying, social relationships'. (AIHW 2023). Research also showed that veterans who felt somewhat part of their local community or who were in moderate social contact with others were less likely to experience loneliness. Being part of supportive communities will enable veterans to have higher quality and quantity of social engagement with others, which may protect them against issues with loneliness.

Veterans may be more vulnerable to loneliness due to their higher rates of physical and mental health conditions. Various factors, such as income, functional limitations, social involvement, and the number of social connections, can affect the severity and likelihood of experiencing loneliness. Veterans at higher risk of loneliness typically include those living alone, not participating in the workforce, having a disability, feeling disconnected from their local community, and having infrequent social interactions.

Experiencing loneliness can increase the risk of premature death and the onset of severe mental health conditions. Therefore, having meaningful and frequent social interactions, supportive communities, stable and secure housing, positive family relationships, employment, a romantic partner, and camaraderie with other veterans during military service can offer protection against negative mental health outcomes and reduce the likelihood of loneliness for veterans.

Researchers have made the comparison between being lonely and smoking 15 cigarettes per day - both are as deadly as each other. A person who is lonely is 50% more likely to die prematurely than a person who has healthy social relationships. Loneliness can reduce a person's immune system and cause inflammation in the body which can lead to heart disease and other chronic conditions. Without social or emotional support, stress can place a bigger toll on a person's health.

Nearly 1 in 5 (18%) veterans were lonely

One third (31%) of veterans **living alone** experienced loneliness

Nearly 1 in 4 (22%) veterans with **disability** experienced loneliness

Source: Veteran Social Connectedness, AIHW 2023

Social connectedness is a key determinant in ADF former serving members' wellbeing, which may contribute to an improvement in their health and overall wellbeing outcomes. Prolonged lack of social contact can lead to loneliness, as well as an increased risk of developing physical, mental, and cognitive health issues, therefore, frequency of social contact is an objective indicator of social isolation, and a higher frequency of social contact and connection is pertinent to enable social connectedness (AIHW 2023).

Research suggests that frequent social contact with others may help reduce suicidal ideation and symptoms of depression and PTSD among ADF former serving members, and among female members, it may improve their ability to cope with deployment-related stressors (AIHW 2023).

22% of all veterans had infrequent social contact with others

Over 1 in 4 younger veterans (aged 18 to 44) had infrequent social contact with others

Veterans in poor mental health were nearly **2x as likely** to have infrequent social contact as those who never served in the ADF

Source: Veteran Social Connectedness, AIHW 2023

3.2 SPORT IN AUSTRALIA


3.2.1 Overview of Sport in Australia


Australians are more likely to identify activities as 'sport' if they involve traditional sports, professional competitions seen on the television, or events like the Olympics – this is evident particularly among Australians who are less engaged in sports themselves.


The Australian Sports Commission (ASC) defines sport as an activity that involves physical effort, skills, and often featuring elements of competition, social engagement or both. It is typically governed by established rules and behaviours set through formal organisations. The extent of organised structure around a physical activity often determines whether it is labelled as 'sport', 'active recreation', 'exercise' or any another related term. The ASC emphasises that sport is distinct from other forms of physical activity like exercise or recreation due to its organised nature, rules, and the element of competition or structured participation.

Sport-related Physical Activity		Non-Sport related Physical Activity
Organised Sport	Social Sport	Active Recreation / Exercise
<ul style="list-style-type: none"> Also known as 'structured' or 'traditional' sport Has a certain degree of organisation or institutional structure on the sport Activities typically related to National Sporting Organisations (NSOs), regardless whether the participant plays through an affiliation with the NSO; e.g., team sports (rugby, football), athletics, swimming, cycling, golf 	<ul style="list-style-type: none"> Also known as 'informal' sport Sport in a less formal context, with minimal organisational supervision ('social'), on top of having friendly-competition and rules present ('sport') Activities can range from football games in the park to friendly matches among friends and community groups 	<ul style="list-style-type: none"> A non-competitive physical activity engaged for the purpose of relaxation, health and wellbeing, or enjoyment Activities typically are not related to the NSOs e.g., gym/fitness activities, bushwalking, recreational, dance

These days, sport takes on many different forms and is constantly evolving based on societal norms, trends, and new directions; enabling inclusivity, variety of abilities, and technological advancements in the participation and involvement of sport. A few variations of sport include:

 **Modified Sport:** Generally designed to be an introductory or more accessible version of a sport, to suit a wide range of needs

 **E-sport:** Electronic sports, which is a collective term to describe organised, competitive, video gaming. Also includes the emerging genre of simulated sports and/or 'fitness gaming'

 **Adventure, Urban and Extreme Sports:** Has core elements of traditional sport but in modified format and outdoor environments. Extreme sports usually include speed, height, physical exertion, significant risk of death or injury, and may require highly specialised equipment

For this report, benefits on the health and wellbeing of veterans and Defence community from both sporting and physical activities of all forms will also be considered and outlined in relevant sections.

41% of Australians [aged 15+] participate in a sport-related activity at least once a week

14% of Australians [15+] volunteer in the sport and active recreation sector at least once a year

Physical health and fitness is the **strongest motivator** for Australians 15+ to participate in sport and physical activity

Source: Clearinghouse for Sport, AusPlay

3.2.2 Australia Sport Megatrends

The sporting field is changing in Australia, and the ways in which we engage with sport and physical exercise, are being transformed by new technologies, changing environmental conditions, shifting value systems, new habits and lifestyles and the increasing diversity of the Australian population. Six megatrends have been identified that will shape the Australian sport sector in the lead up to the 2032 Brisbane Olympic and Paralympic Games, and beyond (ASC and CSIRO 2022).

- 
Escalate the exercise. More people are motivated by the physical and mental health benefits and convenience of exercise and sport. New pathways to sport are being shaped by increasing trends in flexible, commitment-free physical activities via various platforms for participation, and the focus is also shifting away from intense competition towards fun, inclusive, and socially engaging activities for enjoyment and personal fulfilment.
- 
New horizons. There is opportunity to invest in sport innovation and performance through technology advancements, sports science, and sports medicine, to influence participation dynamics, competition nature, data ownership, and ethical boundaries of human performance.
- 
The next arena. Entertainment sports are gaining popularity, driven by the rise of digital and e-sports enabling engagement in virtual environments. Also, urban and adventure sports are captivating the next generation, with more visibility and accessibility to mainstream audiences.
- 
Mind the gap. Australia's population is aging and increasingly diverse, positioning sports organisations and athletes in key roles to drive social change and connect diverse demographic groups to foster a sense of shared purpose, identity and belonging among all Australians.
- 
Our best sporting side. Many Australians expect sport to set strong examples within our communities, including providing a safe place for all involved, improving sport integrity and sustainability, and advocating for vulnerable members of our community.
- 
The perfect pivot. Looking forward, sport will need to navigate an unpredictable landscape, in the face of geopolitical tensions, extreme climate conditions and pandemic-related risks.

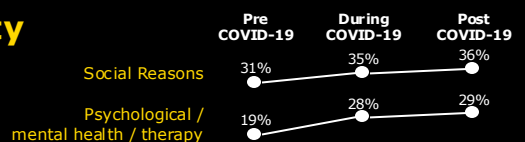
Sport participation remained relatively stable over the past 20 years; however, Australians have been increasingly taking part in flexible, convenient, fitness-based non-sport physical activities, accelerated by the COVID-19 pandemic. The benefits of sport on physical, mental and social wellbeing of individuals and the people around them continue to be key drivers for participation and involvement.

To drive sporting success through to 2030 and beyond, Australia's first national sport plan ("Sport 2030") has been developed to enable the vision for Australia to be the world's most active and healthy sporting nation known for its integrity and excellence. Four key priority areas are outlined in the plan:

- **Build a more active Australia:** More Australians, more active, more often
- **Achieving sporting excellence:** National pride, inspiration and motivation through international sporting success
- **Safeguarding the integrity of sport:** A fair, safe and strong sport sector free from corruption
- **Strengthening Australia's sport industry:** A thriving Australian sport and recreation industry

Participation in Sport & Physical Activity

"Australians continue to exercise for the social and mental health benefits. Both are still a greater motivator now than before the pandemic"



Source: National Sport and Physical Activity Participation Report, AusPlay 2023

3.2.3 The Value of Sport to Australia

Sport is part of the cultural identity of many Australians, where the enjoyment of and participation in sport is essential to the Australian way of life, whilst the economic, health, educational and community benefits are also being enabled for the country and its people. Based on the 2017 Intergenerational Review of Australian Sport ('IGRS Review'), 92% of Australian adults have an interest in sport, 11 million adults and 3 million children participating in sports each year, 8 million attending live sports events each year, and a rich network of sports clubs and competitions exists across the country.

The IGRS Review indicates the sport sector's economic contribution is equivalent to 2-3% of Australia's GDP, employing over 220,000 people and supported by 1.8 million volunteers donating 158 million hours to sport each year. A total economic value of approximately \$50 billion is also created annually from the direct economic, productivity and volunteering benefits from sport.

Sport contributes significantly to health and productivity, forming the basis for an active, healthy lifestyle across all demographics in Australia. Engaging in sports from an early age promotes lifelong activity, resulting in a fitter and more engaged adult population, with enhanced productivity and reduced absenteeism at workplace. Net health benefits such as reduced healthcare costs and early mortality result from health improvements via sport and exercise that alleviates a sedentary lifestyle.

The education benefits from sport result from a high correlation of playing sport regularly as a child and higher lifetime earnings. Sport also brings people together and is an important source of social capital. It is an avenue to change social attitudes and bind communities in an increasingly diverse urban demographic in Australia and the network of sporting clubs and competitions drives rural community connectivity.

Together, a combination of the abovementioned economic, health, educational and community benefits result in every dollar spent in sport returning at least \$7 of total benefits to Australia. (IGRS 2017) However, note that as the IGRS Review was published pre COVID-19, there have been shifts in trends post pandemic such as those reflected in the Future of Australian Sport second megatrends report in 2022, that may impact the economic results of the IGRS Review.

Nevertheless, key sporting events in the past have proven that sport brings in economic benefits that include revenue generation and job opportunities creation for Australia. For example, the 2020 Santos Tour Down Under cycling event attracted 44,000 people to South Australia, created 742 jobs, generated more than AU\$66 million into the economy, and gained a potential audience of 558 million people worldwide. The Gold Coast 2018 Commonwealth Games also saw a \$2 billion increase in Gross State Product (GSP) over 9 years for Queensland and a generation of over 16,000 jobs.

Additionally, a study was conducted on the social return on investment of structured club-based sports participation in Western Australia (WA), resulting in a finding that organised sport in WA delivers an estimated gross benefit of \$10.3 billion annually, supporting 5,715 jobs. For every dollar of economic and social investment, more than \$7 of economic and social benefit are fostered (Sport West, 2022)

Internationally, sport brings value from a global and political relationship perspective, especially for nations around the Pacific rim. For example, the Pacific Sports Program facilitates opportunities for ADF members and the Australian community to engage with veterans and the Pacific Island community to train and compete in sports diplomacy matches, events and training camps (Van Hooff, M., 2024).

Together, sport creates significant value for Australia, with **at least \$7 returned on every dollar** expended in the sector

Source: IGRS 2017

Playing sport as a child improves **cognitive development** and learning of **critical life skills** that are important for adulthood

Source: IGRS 2017

Each participant in **organised sport in WA** realises a **return of \$10,178** from their participation

Source: Sport West, 2022

3.2.4 Cost of Sport in Australia

Australians recognise the value of sport and continue to invest in it, understanding the many benefits of having an active lifestyle. According to a survey by the ASC, Australians spent \$16.4 billion on sport and physical activity in 2022, with \$12.5 billion spent on participation by adults over 15 years old and \$3.9 billion spent on organised outside of school participation by children. Sport-related activities makes up half of the adult participation cost (\$6 billion) and majority of the children's participation cost (\$3.3 billion).

Cost of sport or physical activity participation is not significantly different between males and females, with the median spend for males at \$624 compared to \$648 for females in 2022. The abovementioned cost is the fees paid to an organisation or venue to participate and does not include other costs, like equipment or travel. (ASC 2023)

Financial cost is not always the main factor or barrier for an individual to consider for sport and physical activity participation. There are also other key considerations that contributes to the 'cost' of sport that may influence participation such as:

- **Time** commitment of a player or volunteer to organised sport participation, as well as time commitment from parents and family in the case of a child
- **Investment** into other costs like registration fees, uniforms, equipment, game fees, to enable participation in sport. These specific costs can be influenced by the type of sport, age of participant, and location where the sport is held
- **Travel** cost such as transportation to get to the sporting location (e.g., petrol, time, public transport fees, etc.)
- **Opportunity** cost to account for other activities that participants could do in lieu of sport (e.g., study, unstructured time with friends or family, working, etc.)
- **Services** that are perceived as social obligation such as volunteering of time at sports clubs, especially among parents or family members (not necessarily a monetary cost of sport)

These factors, coupled with the rising cost of living have led to an increased interest in other forms of non-sport related physical activity and recreation in less structured environments compared to clubs (ASC 2023). In lieu of incurring the various cost of sport, Australians are also seeking out other sport or physical activities they can enjoy for free or at a minimal cost whilst still being able to maintain an active lifestyle. For example, survey results indicated that Australians also engage in walking for exercise, alongside other popular free sports activities like running or jogging, cycling, swimming, playing football with friends, and surfing.

Aside from 'cost' factors being barriers to sport participation, poor mental health can also significantly reduce one's interest and participation in sport. For instance, depressive symptoms may cause loss of interest and make everyday activities feel overwhelming. Research also shows that individuals with severe mental illness often face barriers, like physical, psychological, and social challenges, which hinder their involvement in physical activities (Shor, R., & Shalev, A., 2014). This could be a risk among veterans experiencing mental health issues, such as reduced motivation, anxiety, or social isolation, all of which make it difficult to engage in regular physical activities and sports.

Additionally, independent or non-affiliated sport programs, which are often veteran-led or veteran-focused, face significant cost barriers that limit participation. Essential expenses, such as insurance and operating costs, are necessary to deliver these programs but are rarely considered in broader cost analyses. These overheads create financial strain on programs that aim to provide accessible and inclusive opportunities for the Defence community.

60% of Australians [aged 15+] paid to participate in sport and physical activity in 2022

95% of participating children paid to participate in organised sport and physical activities outside of school hours

Half of the **adult participation costs** is spent on sport-related activities

3.3 SPORT IN THE AUSTRALIAN DEFENCE FORCE

3.3.1 Sport in the Defence Culture

Maintaining fitness is a critical aspect of serving in the ADF. Personnel are required to maintain a high level of physical fitness to ensure they can perform their duties effectively. Consequently, staying fit is not just a job requirement but an essential part of an ADF member's daily life. On that note, sport and exercise is fundamental in the Defence culture to help build and maintain fitness levels. For example, an individual is required to take a Pre-entry Fitness Assessment (PFA) six weeks prior to joining the ADF depending on role requirements. Life in the ADF also involves an active lifestyle where one is paid to keep fit, enabled by fitness facilities in ADF bases, structured routines or training regimes involving sport and physical exercise, opportunities to participate in adventure activities and team sports representation.

Sport is regarded similarly across the Five Eyes Nations (Australia, Canada, New Zealand, the United Kingdom and the United States) where it is seen as a core activity that helps maintain fitness to carry out military operations as well as enhances overall operational effectiveness of Defence, wellbeing of personnel and international engagement opportunities.

In Australia, ADF considers sport as a capability enabler and the ADF Sports Program is essential for maintaining physical fitness, readiness for duty, and fostering team cohesion. It contributes to individual wellbeing while offering both domestic and international engagement opportunities, particularly in building connections with culturally diverse communities across the Pacific region. The ADF Sports Program is governed by the ADF Sport Council (ADFSC) and has three main programs:

- **The Conventional Sports Program** encompasses 30 different ADF Sports Associations, each offering opportunities for competition, coaching, and sports administration. These associations host annual interservice competitions, promoting physical fitness and camaraderie.
- **The Adaptive Sports Program** supports ADF members who have been wounded, injured, or become ill during service, helping them recover and reintegrate via both local and international sporting events like the Invictus Games. This program raises awareness of the challenges veterans face while celebrating their resilience and encouraging their social and physical rehabilitation.
- **The Pacific Sports Program**, in coordination with the Department of Foreign Affairs and Trade, connects ADF personnel with Pacific Island communities through sports diplomacy events, fostering meaningful relationships through training camps and competitions.

The ADFSC oversees all ADF sports programs and associations, guided by the Military Personnel Manual (MILPERSMAN) which is the primary policy for sports in the ADF. Its mission is to ensure that sports participation enhances operational readiness, promotes wellbeing, and fosters connections across all ranks.

3.3.2 Sport in the Veteran Community

Sport in the Australian military and veteran community reflects a broad and inclusive understanding of aspects like physical fitness, mental health, social connectivity, and overall wellbeing. These elements are crucial to programs and policies designed to improve the life quality and operational readiness of both current Defence members and veterans.

Transitioning from ADF life to civilian life can bring significant changes. Military life is structured with routines, defined roles, and strong camaraderie, which can make the civilian world feel foreign. This extends to sport and fitness, where ADF members previously adhered to mandatory physical standards and training as part of the conditions of military service. However, after leaving the military, maintaining physical fitness becomes a personal responsibility, requiring motivation, discipline, and self-direction to establish a new routine or maintain similar levels of physical activity.

Sporting organisations within the military and veteran communities emphasise sport as a fundamental part of their health and resilience initiatives, recognising its wide-ranging benefits for physical, mental, and social health.

ESOs such as Soldier On, Legacy Australia, and RSL Active offer tailored programs to support the physical and mental health of veterans and their families. Soldier On operates across several locations, offering veterans the chance to reconnect with their community through activities like golf. Legacy Australia focuses on personal development for young veterans and their families through youth camps and sports, while RSL Active provides nationwide opportunities for veterans to engage in activities such as yoga, golf, and group fitness, promoting overall wellbeing and social connection. (Van Hooff, M., 2024)

Other programs like Mates4Mates, WAVES, and Swiss 8 also play significant roles in supporting veterans' recovery. Mates4Mates provides physical rehabilitation and mental health services through social connection and sporting activities, while WAVES partners with the University of South Australia to offer adaptive sports programs that promote post-traumatic growth. Swiss 8, on the other hand, offers a digital app that provides fitness modules, mental health resources, and habit trackers designed to improve veterans' overall well-being. Several other initiatives like the Association of Veteran Surfers, Remus Rover Racing, and The Sporting Wheelies also contribute to veterans' mental and physical rehabilitation through sport and peer support. (Van Hooff, M., 2024)

Invictus Australia, formerly Veterans Sport Australia, manages the participation of ADF veterans in sporting events like the Invictus Games and the Warrior Games, while the ADF's Adaptive Sports Program oversees the involvement of active service members. The organisation focuses on enhancing veterans' physical and mental wellbeing through grassroots participation and international competition, with their website providing resources for sports involvement and event information. The Invictus Games promote ability, inclusivity, and recovery for wounded and ill servicemen and women via adaptive sports, focusing on camaraderie, family support, and long-term post-service participation. (Van Hooff, M., 2024)

Invictus Australia maintains a broad focus on enhancing veterans' physical and mental wellbeing through grassroots participation and international competition; delivering systemic improvements by connecting and enabling organisations and individuals across sectors. This approach recognises the importance of utilising the existing system, organisations and networks but considers how this can be better leveraged to deliver both rehabilitative and preventative outcomes for veterans and their families.

ESOs have a unique opportunity to expand their impact and accessibility for veterans nationwide. Cross-collaboration across the veteran organisations or ESOs have the potential to optimise resources' capacities and local expertise across the ecosystem to enable sport intervention in veterans and their families' lives, especially post-military. This leads to the opportunity for broader coordination and synergies to scale sports program outreach and drive cost-efficiencies in delivering those programs for the benefit of the Defence community.

4.1 THE ECONOMIC COSTS OF MENTAL HEALTH FOR VETERANS IN AUSTRALIA

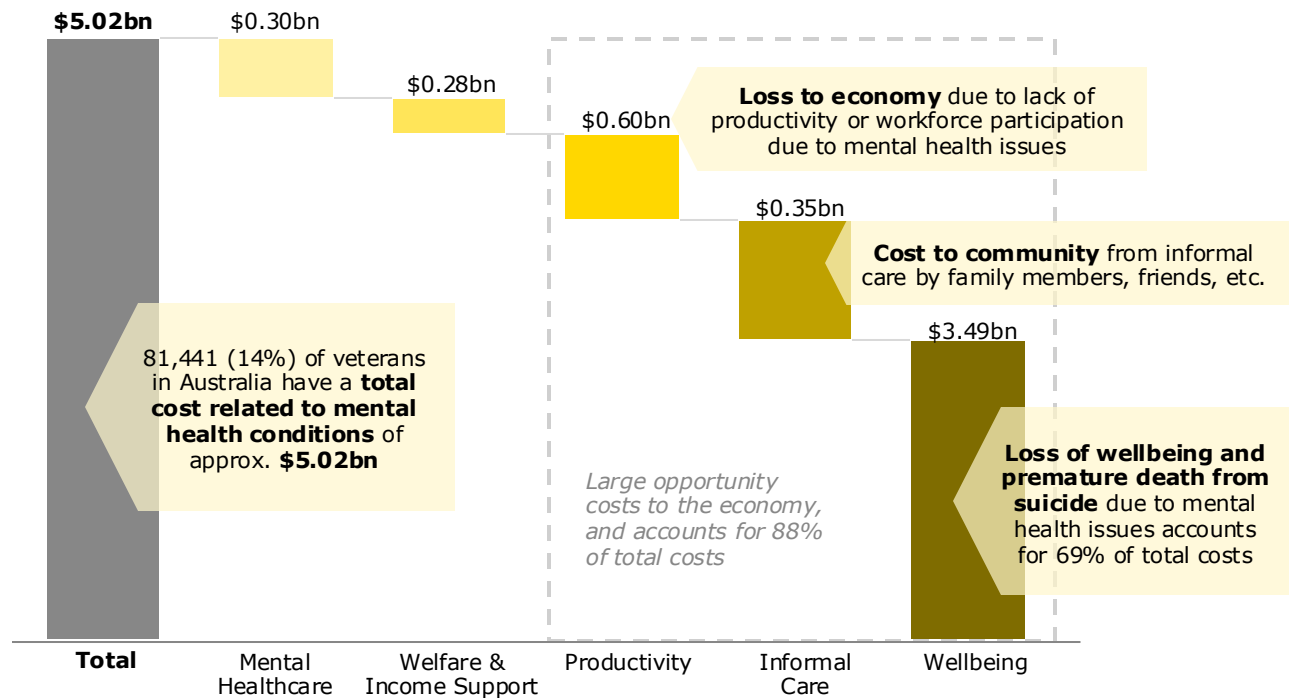
An economic analysis for this study is undertaken to obtain an understanding on the economic impacts of mental health and psychological related conditions for veterans in Australia, as illustrated in the chart below. Other economic impacts from physical and social health related conditions of veterans will be described in subsequent sections of the report. The healthcare cost numbers utilised in this analysis are based on the Australian government's reporting of DVA's share of the total health spend. This could be on the conservative side given that there are also other avenues of support on veterans' mental health on top of DVA expenditure, like other governmental investment, charities or ESOs, that are limited in availability.

There are 81,411 or 14% of 581,139 veterans in Australia (ABS, 2021) that have a mental health condition, including depression or anxiety. Based on this, the total cost of veteran's mental health in the Australian society is estimated to be \$5.02 billion. Direct costs account for 12% of the total costs, with a similar split between mental healthcare treatment costs and welfare and income support of \$0.30 billion and \$0.28 billion, respectively. Of the \$0.30 billion, majority of the mental healthcare treatment cost (98%) is funded by government like Medicare and private health agencies, while the remainder (2%) are out-of-pocket expenses by the individual. The welfare and income support consists of DVA funded healthcare spend and formal care costs related to mental health conditions for veterans.

Opportunity costs such as productivity loss, informal care, loss of wellbeing and premature death by suicide due to mental health issues are large hidden costs to the economy, and accounts for 88% of the total costs. Within that, the loss of wellbeing and premature death from suicide due to mental health issues is the largest cost area (69% of the total cost), impacted by psychological factors associated to loss in quality of life and increase in self-harm activities from poor mental health.

Total Cost of Mental Health Conditions for Veterans in Australia (\$bn) ^{1,2,3}

\$bn, total number of veterans with mental health conditions in 2021



1. The values have been taken from different sources (listed in the 'Reference' section of this report) and as possible, from each source's latest reporting on the topic. We have brought forward the values through time value of money calculations and are reporting on 2022 AUD basis.
 2. While incurred costs are directly apportioned from reported numbers, economic costs are estimates based on most cited and scientific methods, but still limited to fair level of confidence.
 3. Assumption that the mental healthcare costs of an Australian is in line with that of a veteran (12-month mental disorder basis)

4.1.1 Direct Costs Associated with Mental Health of Veterans in Australia

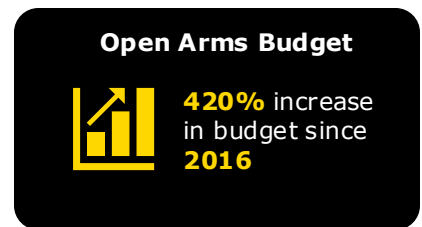
Mental health conditions among veterans, such as depression, anxiety, and trauma-related disorders, are a significant concern in Australia. These conditions lead to considerable direct economic costs, which largely stem from the healthcare services provided to veterans by the Australian government, particularly through the DVA. The direct costs encompass expenditures on hospitalisation, outpatient services, mental health treatments, pharmaceuticals, crisis services, and specialised support programs. This report describes the various components of direct costs associated with mental health conditions among veterans and discusses the implications for the healthcare system and broader economic landscape.

Outpatient Mental Health Services

Outpatient services are another major component of the direct costs for treating mental health conditions among veterans. Many veterans require ongoing support through outpatient services, including psychotherapy, counselling, cognitive-behavioural therapy (CBT), and other evidence-based treatments. These services are often delivered by psychologists, psychiatrists, and mental health social workers who specialise in trauma and veteran care. The demand of counselling services has dramatically increased in the past 10 years, showing the success of focusing on mental health, with the Australian government prioritising an increase of expenditure in this area due to the benefits it brings to the veterans.

DVA provides veterans with access to a range of outpatient mental health services, covering the costs of consultations, therapies, and follow-up appointments. Open Arms is a key organisation that provides this support, with DVA budgeting \$134 million for 2024-25, an increase of 420% since 2016, indicating the demand and support required. This support ensures veterans receive continuous care, reducing the likelihood of crises that may lead to hospitalisation.

The high demand for these services, combined with the need for specialised care tailored to veterans' unique experiences, significantly contributes to overall healthcare expenditures. The provision of such services requires substantial investment in mental health professionals and infrastructure, including the development of veteran-focused mental health clinics and community health centres.

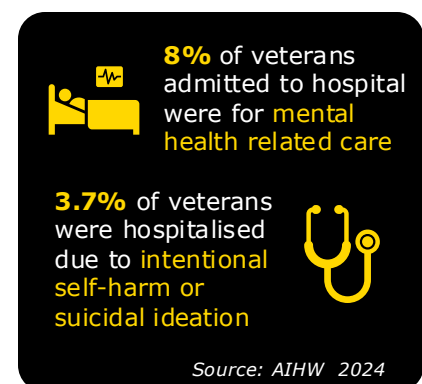


Hospitalisation and Inpatient Care Costs

One of the most significant direct costs associated with mental health conditions among veterans is hospitalisation and inpatient care. Veterans experiencing severe mental health challenges, such as anxiety, depression, or conditions related to trauma, often require extended inpatient stays to receive appropriate treatment. These admissions, particularly for acute mental health crises like self-harm or suicidal ideation, are often resource-intensive. This is supported under DVA by holding a Veteran Gold Card, a Veteran White Card or a written authorisation for their treatments to be eligible to receive hospital services under DVA's arrangements.

Approximately 3.7% of former service members in Australia were admitted to the hospital due to intentional self-harm or suicidal ideation, and about 8% were admitted for mental health related care. Both figures exceed those for the general Australian population, reflecting the unique mental health challenges faced by veterans (AIHW, 2024).

From 2021-22, around 11,800 hospitalisations were funded by the Department of Defence, while DVA funded approximately 179,000. Together, these represented 1.6% of all hospitalisations in the country. Notably, the vast majority of these DVA and ADF funded hospitalisations occurred in private facilities, with 73% and 89% hospitalisations respectively, compared to just 40% for the general Australian population. This disparity underscores the importance of private healthcare providers in addressing the mental health needs of veterans, as well as the significant costs involved in delivering this specialised care.



Pharmaceuticals and Medication Management

Pharmaceutical costs are a significant part of the economic burden of managing mental health conditions among veterans. Many veterans need medications like antidepressants, anxiolytics, antipsychotics, and mood stabilisers to manage symptoms such as anxiety, depression, and mood instability. These treatments require careful management to ensure they are effective and minimise side effects. The Pharmaceutical Benefits Scheme (PBS) is supported by the Australian Government to support providing timely, reliable and affordable access to necessary medicines for Australians (PBS, 2024). Ultimately, DVA has been allocated a proportion of budget to support veterans, which is higher than the average Australians.

Pharmaceutical Benefits Scheme DVA Allocation



7% of Australian Government Spending



Approximately \$606 per veteran



Approximately **3.5x more** than the average Australian

Source: AIHW Mental Health Expenditure

The chronic nature of many mental health conditions means veterans often need long-term medication, adding to costs. These costs include not only the medications but also regular doctor visits for prescription renewals, monitoring, and treatment adjustments. As mental health issues remain common among veterans, managing these costs is an ongoing challenge for the healthcare system.

Specialised Programs and Rehabilitation Services

DVA invests significantly in specialised programs and rehabilitation services aimed at addressing the mental health needs of veterans. In addition, the Department of Defence spends approximately \$69 million per year to provide education and awareness programs and provide access to mental health treatment and rehabilitation (DVA, 2018). These programs include residential rehabilitation facilities, day programs, peer support groups, and veteran-specific counselling services. The aim is to provide holistic care that addresses not only mental health symptoms but also broader aspects of well-being, such as social reintegration, employment support, and family counselling.

4.1.2 Indirect or Opportunity Costs Associated with Mental Health of Veterans in Australia

In addition to direct healthcare costs, mental health conditions among veterans also impose significant indirect economic burdens through their impact on productivity and workforce participation. Veterans with untreated or poorly managed mental health conditions often face challenges in maintaining steady employment, resulting in lost productivity, absenteeism, and presenteeism. These indirect costs can have substantial implications for both veterans and the broader economy.

The loss of productivity among veterans affected by mental health conditions is a significant concern. Many veterans experience difficulty transitioning to civilian employment due to the mental health challenges associated with their service. This difficulty can lead to prolonged periods of unemployment or underemployment, which in turn reduces overall economic output. Veterans who are employed may also experience presenteeism, where they are physically present at work but struggle to perform at their full capacity due to their mental health condition. This reduced productivity affects employers and the economy as a whole, with significant financial consequences. Absenteeism, where veterans are unable to work due to their mental health issues, further contributes to indirect costs. Veterans may require extended leave to manage their conditions or seek treatment, affecting both their earnings and employers' operational efficiency. The cumulative impact of absenteeism and presenteeism result in lost economic productivity, estimated to cost billions annually.

Long-term unemployment and reliance on welfare support represent another substantial indirect cost associated with mental health conditions among veterans. Veterans with severe or chronic mental health conditions may become long-term recipients of disability support pensions or other forms of social assistance. This dependence on social services increases government expenditure and reflects broader economic challenges in supporting a population significantly affected by mental health issues. The resulting loss of workforce participation and economic productivity has far-reaching consequences for the economy.

The opportunity cost associated with mental health impact on veterans in Australia refers to the trade-offs associated with the resources, time, and attention allocated to address these issues, rather than being invested in other areas of society or within the veterans' lives themselves. Some key aspects of this opportunity cost include:

Loss of Productivity or Contribution to the Economy

Veterans with mental health challenges such as anxiety, depression, or trauma-related conditions often experience reduced productivity, which can manifest in various forms. One significant aspect is unemployment or underemployment. Many veterans may find it difficult to secure or retain meaningful employment due to their mental health struggles, even though they have valuable skills, knowledge, and experience from their service. For those employed, symptoms such as difficulty concentrating, emotional instability, or fatigue can reduce their ability to perform tasks efficiently, leading to workplace absenteeism or even presenteeism, where they are present at work but unable to contribute at their full capacity. This not only results in a loss of income for the individual veteran but also impacts the overall economy by underutilising a pool of highly skilled labour. Additionally, veterans who might have the leadership and discipline required for entrepreneurial endeavours may avoid pursuing business ventures due to their mental health challenges. The reduced entrepreneurial activity means that potential innovation, business creation, and community leadership from this group remain untapped, further contributing to lost economic opportunity.

Informal Care or Cost to Community

The mental health struggles of veterans extend beyond the individual, profoundly affecting their families and broader communities. Family members often bear the emotional and logistical burden of supporting veterans through their mental health journeys. This can strain family dynamics, as spouses, children, and relatives may face increased responsibilities, emotional exhaustion, and in some cases, experience secondary trauma from the challenges of caregiving. Marital relationships may become strained, with veterans feeling detached or emotionally unavailable, while children may struggle to understand their parent's erratic behaviour or absence due to hospitalisations or treatment. These dynamics can affect the emotional development and well-being of the entire family unit. At a community level, veterans who might have once contributed as leaders, role models, or active participants may withdraw due to their mental health challenges, resulting in a diminished sense of community involvement and social cohesion. This withdrawal also reduces the ability of veterans to participate in volunteer activities, mentorship roles, or public service, where their leadership and experiences could significantly benefit their communities. The ripple effect of a veteran's mental health challenges, therefore, creates a broader social cost, as families and communities lose out on the positive contributions veterans could otherwise make.

Quality of Life Impacted

Mental health conditions have a profound impact on the overall quality of life for veterans, affecting various dimensions of their personal and social wellbeing. Veterans suffering from depression, post-traumatic stress, or other disorders often face difficulties in maintaining personal relationships, pursuing hobbies, and engaging in social activities, all of which are important for emotional health. These issues can lead to isolation, loss of self-esteem, and reduced life satisfaction. Moreover, the psychological strain can hinder veterans from continuing education, professional development, or acquiring new skills, leading to long-term consequences on their potential career growth and personal fulfillment. Veterans may also feel a loss of identity, having transitioned from a structured, purpose-driven military life to a civilian world that may feel disconnected. This sense of disorientation, combined with mental health struggles, can erode their ability to enjoy and participate in everyday experiences, diminishing their overall quality of life. The inability to manage daily responsibilities or pursue future aspirations can leave veterans in a constant state of stagnation, preventing them from living a full, meaningful life.

4.2 THE ECONOMIC COSTS OF PHYSICAL HEALTH FOR VETERANS IN AUSTRALIA

Veterans in Australia face a unique set of physical health challenges due to their service, ranging from injuries sustained in combat to long-term musculoskeletal issues and chronic diseases. These conditions not only impact their health and quality of life but also lead to significant economic consequences for themselves, their families, and the broader Australian economy. Some of the economic impacts of physical health conditions of veterans will be outlined in this report, focused on healthcare costs, loss of productivity, reliance on social welfare, and the long-term financial strain on families.

4.2.1 Direct Costs Associated with Physical Health of Veterans in Australia

Increased Healthcare Costs

The healthcare needs of veterans with physical health conditions are extensive and require a wide range of medical services, including surgeries, medication, rehabilitation, and ongoing care. Common physical conditions among veterans include musculoskeletal disorders, hearing loss, cardiovascular diseases, respiratory issues, and amputations. Many of these conditions are long-term, requiring continuous care and management throughout a veteran's life.

DVA in Australia plays a crucial role in funding healthcare services for veterans. In addition to providing access to public hospitals, veterans often receive specialised treatments, including physiotherapy, orthopaedic surgeries, and chronic pain management. For example, musculoskeletal injuries, a common issue among veterans, necessitate long-term care, physical therapy, and, in some cases, pain management plans involving costly medications or surgical procedures. Such treatments contribute to a substantial financial burden on the healthcare system.

In 2021 alone, DVA spent over \$2.8 billion on healthcare provisions for veterans, a large portion of which went toward managing chronic physical health issues. This expenditure represents a significant cost to the government and the broader public health infrastructure, which must also meet the needs of the general population. The concentration of resources on managing the long-term health issues of veterans increases the overall healthcare expenditure and diverts funding from other areas of public health.

Increased Reliance on Social Welfare Programs

Veterans with significant physical health conditions often rely on government-funded social welfare programs to meet their financial and healthcare needs. The Australian government provides various support systems for veterans, including disability pensions, health benefits, and housing assistance. For veterans with severe disabilities, such as amputations or paralysis, these programs are essential for covering living expenses and medical costs.

The economic burden of maintaining these social welfare programs is substantial. Disability pensions provide financial support for veterans who are unable to work due to physical conditions, while other forms of government assistance help veterans with daily living expenses, housing modifications, and transportation needs. For veterans requiring continuous care, such as those with severe mobility impairments, the government may also cover the costs of caregivers and home modifications to ensure accessibility.

As the population of aging veterans increases, the demand for these welfare programs continues to rise. Veterans often require increased support as their physical conditions worsen with age, leading to higher public expenditure over time. This reliance on long-term government support, while necessary, presents a significant economic challenge for Australia, as it involves allocating substantial resources to meet the needs of the veteran population.

4.2.2 Indirect or Opportunity Costs Associated with Physical Health of Veterans in Australia Long-Term Financial Strain on Families

The economic impacts of veterans' physical health conditions extend beyond the individuals, to include their families as well. In many cases, family members take on caregiving responsibilities, particularly when veterans require daily assistance with mobility, medication, or physical therapy. This unpaid caregiving work can limit the employment opportunities and earning potential of family members, contributing to the overall financial strain on households.

For example, a spouse or adult child may reduce their working hours or leave their job altogether to provide care for a veteran with a severe physical disability. This loss of income affects the family's ability to maintain financial stability and save for future needs. Additionally, veterans and their families may face increased out-of-pocket expenses for medical treatments, home modifications (such as installing ramps or accessible bathrooms), and assistive devices like wheelchairs or prosthetics.

The financial strain can have long-term implications for the family's economic well-being, reducing their capacity to invest in education, housing, or retirement savings. Families who experience ongoing economic stress due to the physical health conditions of veterans are also more likely to rely on public assistance programs, further increasing the economic burden on society.

Loss of Productivity and Economic Participation

Veterans with physical health conditions often experience reduced capacity to work, which results in a loss of productivity. Injuries and chronic health conditions such as mobility impairments, back pain, or joint disorders can prevent veterans from performing physically demanding jobs. In many cases, veterans must transition to less physically intensive occupations, work part-time, or leave the workforce entirely, significantly reducing their economic participation.

Early retirement due to physical health conditions is a common issue among veterans. This not only affects individual veterans by reducing their lifetime earning potential, but it also results in a loss of skilled labor in the workforce. Veterans bring valuable skills and experience to the workforce, but their ability to contribute is compromised when they suffer from debilitating physical conditions. This loss of productivity represents a considerable economic cost to the national economy, as veterans who are unable to work reduce their contributions in terms of taxes and economic activity.

Veterans with physical disabilities are less likely to be employed compared to their non-disabled counterparts, and when they are employed, they often face reduced earning potential due to physical limitations or part-time work. This income loss can have long-term economic repercussions for veterans and their families, including reduced savings, limited financial security in retirement, and increased dependency on social welfare programs.

4.3 THE ECONOMIC COSTS OF SOCIAL HEALTH FOR VETERANS IN AUSTRALIA

Good social wellness has both physical and mental benefits, and subsequently mortality risks. Similarly, having good mental health drives improvement in social health. Studies show that both the quality and quantity of social relationships have short and long-term effects on an individual's health and wellbeing. This is particularly important for ADF former serving members, especially during the vulnerable period of transition to civilian life, that may bring in risks of social isolation and loneliness.

The economic costs associated with social isolation and loneliness among veterans in Australia impacts both healthcare expenses and overall productivity. Australia invests significantly in the health and wellbeing of its veterans and the Defence community, focusing on various aspects including mental health and social connectedness. DVA budget for 2023-24 includes \$328.1 million over four years for supporting the ADF veterans and their families, including funding for mental health services and social programs.

4.3.1 Direct Costs Associated with Social Health of Veterans in Australia

Increased Healthcare and Formal Care Costs

ADF former serving members who experience isolation are more prone to mental health issues such as depression, anxiety, and PTSD. These conditions can lead to increased demand and use of mental healthcare services, higher rates of hospitalisation, and reliance on long-term care, all of which contribute to growing healthcare costs.

Several initiatives aim to improve veterans' social and mental health. For instance, as part of DVA's 2023-24 budget package, \$500,000 is allocated to expand the Acute Support Package, which provides additional support to families, including grand-carers or grandparents who are full time carers of the children of veterans, while \$2 million is committed over two years to mental health awareness and suicide prevention training for volunteers working with veterans. Additionally, other government departments and ESOs do contribute resources to veterans' social health through broader health and social services.

Investment into DVA Social Health Programs

To ensure the veteran community and their families is supported not only through healthcare but also through social initiatives that promote connection and community involvement, DVA has a social health framework in place that suggests a robust effort to address these issues comprehensively, supporting the investment into DVA's social health programs.

Based on DVA's Social Health Strategy 2015-2023, there is a continuous investment in a range of programs and initiatives to support health and wellbeing in the veteran and former serving community, including population-level programs and individual entitlements. These programs include mental health services, social engagement initiatives, and support frameworks designed to enhance community connections and reduce social isolation, such as Veterans' Health Week, National Indigenous Veterans' Strategy, Veteran and Community Grants, and the Stepping Out Program, to name a few.

Investment into Social Welfare Support

Social isolation can contribute to homelessness among veterans and former serving members, a situation that imposes additional financial burdens on both government welfare systems and housing programs. In general, members of the former serving community are at a higher risk of homelessness than non-former serving, and for those who do experience homelessness, social isolation and lack of a social support network are correlated with longer duration of homelessness and more chronic homelessness. (NVHS 2021)

Based on the Specialist Homelessness Services (SHS) Annual Report 2022-23, an estimated 5.3% of veterans who have transitioned from the ADF experience homelessness every year, compared to 1.9% of the broader Australian population. Identified risk factors contributing to a high risk of experiencing homelessness can include being single, unemployed, experiencing financial strain, having a physical injury, disability, and mental health issue, having less contact with friends or a family because of physical isolation and experiencing a greater number of traumatic events.

Approx. 5.3% of veterans who transitioned from the ADF **experience homelessness** every year

Source: SHS Annual Report 2022-23

As part of the Australian Government housing policy measures, the May 2023–24 Budget has a range of housing measures in support of the delivery of social and affordable housing and better market access for home buyers, including the Housing Australia Future Fund (HAFF) that includes a \$30 million budget to build housing for veterans who are experiencing homelessness or at risk of homelessness. Current or former ADF members can also access a range of housing and homelessness services through government and non-government organisations, including access to subsidised housing loans, home support loans, insurances, other benefits and discounts than the broader population.

4.3.2 Indirect or Opportunity Costs Associated with Social Health of Veterans in Australia **Decreased Workforce Participation or Loss of Productivity**

There is limited evidence that quantifies the loss of productivity due to social isolation and loneliness among veterans in Australia. However, studies and literature indicated that social isolation and loneliness could lead to poor mental health and wellbeing outcomes for an individual such as depression and anxiety, which reduce their capacity to work effectively, resulting in higher absenteeism, lower presenteeism, and early retirement. The decreased workforce participation, productivity, and retention due to social isolation and the lack of social support network also leads to an overall decrease in economic contributions from individuals who might otherwise remain engaged in the workforce. Additionally, there is a correlation between social connectedness and employment status, whereby unemployed people have by far the lowest level of social connectedness.

Socially isolated veterans or former serving members are less likely to engage in community activities or employment, which affects both individual and societal economic outcomes. Nevertheless, DVA provides vocational rehabilitation to enable members to remain in, or return to, a vocation of their choice – maximising the individual’s potential to find meaningful employment after life in the military. Vocational rehabilitation is crucial to enable employment and contributing to improved health, as well as social and economic wellbeing.

Mortality Risk or Quality of Life Impacted

Studies show that social isolation is associated with an increased risk for all-cause mortality, however, the magnitude of its effect is unclear and needs to be further researched. In general, social isolation could lead to increased morbidity and mortality partly through unhealthy lifestyles such as smoking, excessive alcohol intake, poor nutrition, and physical inactivity. This significantly increases a person's risk of premature death from all causes, rivaling the risk from those of smoking, obesity, and physical inactivity.

Additionally, people with poorer social interactions are more likely to die younger than those with higher social involvement rates. For example, a study from the U.S. Surgeon General’s Advisory on the Epidemic of Loneliness and Isolation in 2023 highlighted that poor social relationships (e.g., socially isolated or loneliness) has an impact to an individual’s health and longevity, such as a 29% increased risk of heart disease and a 32% increased risk of stroke. Social isolation was also associated with about a 50% percent increased risk of dementia and loneliness with higher rates of depression, anxiety, and suicide.

5.1 BENEFITS OF SPORT ON HEALTH AND WELLBEING OF VETERANS IN AUSTRALIA

Mental health is a critical concern for Australia's Defence community, including for active members, veterans and their families. Military life often brings stress, isolation, and reintegration challenges, which heighten the need for effective mental health and overall wellbeing strategies like participation in sports. Engaging in physical activity not only improves physical fitness but also boosts mental wellbeing and social connections.

Sports help prevent social isolation by fostering social interaction and enhancing a sense of connectedness, especially for former ADF members transitioning to civilian life. Programs like the Invictus Pathways Program highlight how exercise can improve wellbeing and foster a sense of community, aiding reintegration. There are multiple ways where sport can be leveraged to benefit veterans mental and physical health, while building social connectedness and alleviating loneliness.

The Mental, Physical and Social Health Benefits from Sports Participation

For many in the Defence community, engaging in sports offers a powerful means of managing mental health. Physical activity is known to release endorphins, the body's natural mood enhancers, which can help reduce anxiety, stress, and depression. The physiological benefits of exercise, such as endorphin release, contribute to improved mood and reduced stress levels. Minimum physical activity levels can benefit Australians in the long-term resulting in a reduction of burden of anxiety up to 6.5% and burden of depression by 4.4% in 25 years' time. This is important for Defence personnel, who often face high levels of stress during combat or post military, challenges of transitioning to civilian life.

Minimum physical activity levels can benefit Australians in the long-term resulting in reduction of:

up to 6.5% burden of anxiety and
up to 4.4% burden of depression
in 25 years' time.

Beyond its immediate mood-lifting effects, regular participation in sports has been shown to improve sleep patterns, increase energy levels, and enhance cognitive functioning. For ADF members or veterans who may struggle with sleep disturbances or mental fatigue due to their past experiences, exercise can serve as a natural remedy. By improving the quality of sleep and promoting better focus, sports offer a holistic approach to mental health care that supports both the body and the mind.

Research has also shown that participation in adaptive sports aids the recovery of wounded, injured, and ill ADF members through stronger ties to their communities. The evidence highlights the essential interplay between the domains of physical, mental, and social health and wellbeing – in which issues in one domain can contribute to challenges in the others (JMVH 2022). Participation in adaptive sports offers significant advantages for former service members and their families, such as reintroducing opportunities for social interaction and fostering reconnections with their children who also enjoy sports, in addition to bonding with their families via shared leisure activities. This leads to greater marital satisfaction, enhanced family adaptability, cohesion, and improved family functioning as a unit. For example, couples that participate in adaptive sports events together reported higher levels of marital satisfaction and a reduced severity in PTSD in veterans (Van Hooff, M., 2024).

Sport participation encourages a shift in mindset, allowing former service members to replace past traumatic experiences with new positive memories, recognise their own strengths, and pursue achievements they previously deemed unattainable. It also facilitates meeting new people with shared interests, strengthening community ties and fostering social connectivity. Family involvement in sport events like the Invictus Games helps families feel valued and recognised for their role in the veteran's military service and recovery process. It fosters pride in the veteran's resilience and commitment and enables meaningful connections with other veteran families and the wider Invictus Games community.

There is also strong research evidence that associated participation in various forms of sport and active recreation with a decrease in all-cause mortality. Participating in sport and active recreation in early stages of life is a predictor for active lifestyles and improved health indicators in later life. It is also a protective good for society, where harmful activities and behaviours are minimised among sport participants and social cohesion, inclusion, and engagement in society are increased.

Volunteering or Being Involved in Sport

The AIHW defines volunteering with reference to a person donating their time to help an organisation, or someone in need, for no financial gain. Aside from benefiting the community, volunteering enables ADF former serving members in expanding their own social network, deepening their professional skills, promoting good mental health, and decreasing social isolation (AIHW, 2021). The benefits of volunteering in sport provides a range of health and social benefits to an individual and the people around them, such as:

- Improved mental health and wellbeing
- Enhanced physical health and rehabilitation
- Increased social connection and reduced isolation through new friendships, spending time with family, having enjoyment and fun
- Being part of a community with a renewed sense of purpose and giving back
- Development of new skills and building confidence
- Reduction in suicide rates and self-harm

Nearly 1 in 5 (19%) veterans volunteered compared to people who had never served in the ADF

Veterans who are **aged 45+** and **not in the labour force** are more likely to volunteer

Without the structure and camaraderie of military life, ADF members that transitioned out of the service may struggle to integrate into civilian social networks. The act of volunteering provides structure and routine, hence engaging in volunteer work can help former serving members build connections with others and communities while leveraging the training and skills acquired during their ADF service. For example, through volunteering in sports clubs, former serving members can leverage their leadership and teamwork skills by offering mentorship to young athletes or helping organise events. This provides them with opportunities to apply their expertise, boost self-confidence, and strengthen their sense of identity – helping them remain engaged with the community, gaining a sense of value and purpose.

Research has shown that individuals who dedicate time in volunteering activities each week experience less social isolation and loneliness, acting as a protective factor against social connectedness challenges. Volunteering is also a known contributor to positive mental health and the additional involvement in local sports clubs via volunteering offers another layer of support for any veterans who may feel disconnected from civilian life.

Active Membership to Sporting Clubs or Associations

Aside from participating in volunteer activities, being an active member of a sport, hobby or community organisation is also linked to a reduction in social isolation. Being part of, or volunteering, at a club or association offers ADF former serving members the chance to form friendships, engage with people from different backgrounds, and build a strong sense of belonging and purpose. Social health benefits such as increased self-confidence, self-esteem, personal empowerment, and social relationships can also be gained through enjoyable activities such as sports, hobbies, or participating in community groups, on top of chronic physical and mental health benefits.

The transition out of military often requires ADF former serving members to rebuild their sense of purpose, social connections, and sense of belonging. For those who often face challenges transitioning to civilian life, participating in sports through clubs and associations, that may or may not be ESOs, offers a structured and social environment that enables engagement with others who share similar experiences and interests. Former serving members who regularly engage in such activities through a club or association are more likely to report lower levels of loneliness and a higher sense of purpose, which can contribute to better reintegration into civilian life.

More than one quarter (28%) of ADF personnel who recently left the military have joined one or more ESOs for various types of assistance in their transition journey and 2 in 3 (66%) DVA card holders belong to similar organisations. Wave 2 of the HILDA Survey also found that 48.7% of ADF personnel who served in the Reserves and those of an older age group (65+ years) were more likely to be active members of clubs and associations, while those in poor general health were less likely to be active members of clubs and associations.

40% of all veterans were active members of clubs or associations

48.7% of veterans who served in the Reserves were active members or clubs and associations

More than one quarter (28%) of ADF personnel who **recently left** the ADF have **joined one or more ESOs**

Source: Veteran Social Connectedness, AIHW 2023

Being and Feeling Part of a Local Community

Connecting with others through sport offers ADF former service members an excellent opportunity to foster connections within their local community. The connection between mental health, sports, and community engagement extends beyond the individual to the broader local community. Sports clubs often serve as hubs for social interaction, where individuals from diverse backgrounds come together in pursuit of common goals. Defence personnel and veterans, through their participation and volunteering, contribute to the strength and vitality of these communities.

The AIHW describes a sense of community belonging as to how individuals perceive their connection and role within their local community. By joining a local sports team or group, former serving members can develop regular routines that contribute to stability in their daily life. In doing so, they also strengthen their sense of belonging, create social cohesion, and build meaningful friendships along the way. These social bonds are not only integral to their mental health but also create a network of support within the community, which is essential for long-term wellbeing.

Socially cohesive communities and neighbourhoods promote physical and psychological wellbeing and are seen as beneficial to an individual's overall health and welfare. Studies shown that local community belonging is often linked to greater sense of social support and lower levels of loneliness and is likely to play an important role in shaping former serving members' health and wellbeing. The sense of achievement that comes from contributing to a community's success, whether through organising a local tournament or coaching a team, provides both satisfaction and long-term mental health benefits, empowering former serving members to take control of their post-service lives, rebuild their sense of purpose, and maintain positive mental health practices.

Research has shown that a sense of community belonging is linked to fewer difficulties in an ADF personnel's transition to civilian life. More than half of former ADF members (56%) that reported a strong sense of community belonging had fewer challenges in their transition journey. Additionally, research on Reservists highlights that those who feel more connected to their local community experience higher overall wellbeing, which is partly attributed to greater social support and improved resilience. Veterans' involvement in their local communities can help raise awareness on the unique challenges faced by those in the Defence community, fostering greater empathy and support among the civilian population. This mutual understanding creates a positive feedback loop: as the community becomes more inclusive and supportive, veterans and service members feel more valued and integrated, further enhancing their mental wellbeing

With over 1 in 4 veterans did not feel part of their local community, local sporting clubs and ESOs play a role in providing the Defence community opportunities to engage and be active in their local area as well as help them connect with other local organisations to find their sense of community within these environments. The Australian Sport Megatrends Report also highlights that local sports clubs are likely to continue fostering a shared sense of belonging, filling roles previously served by religious and other community institutions.

Over 1 in 4 veterans did not feel part of their local community

Source: AIHW 2023

CASE STUDY

Tracey Clothier, a defence spouse of over 20 years, understands the unique experiences of veterans, as well as how this can affect the entire family unit. Because of this, she was after a regular way to foster wellbeing and build connection.

Tracey discovered Invictus Australia's regular yoga program through work and, recognising it as a chance for self care, decided to attend a class. She says this decision has been transformative for her physical health, but more importantly, her mental wellbeing.

When Tracey noticed her husband John, a Navy Veteran, began to retreat post service, she encouraged him to come along to these regular classes. It was not long until John reaped the benefits of this practice. His chronic pain has eased, his flexibility has improved and most importantly, he is now out in the community, being social.

Even though their experiences in the defence community differ, the pair are glad to have found something that can benefit both of their wellbeing, while fostering camaraderie with their local community. For Tracey, building a support network for herself, as a defence spouse, has been one of the greatest take aways of regular sport.

“ Defence life can be hard, but sport can help. Sometimes, family members need this support as much, if not more than a veteran does. After incorporating this into my everyday life, I want to be out and about, I've got more clarity, I feel better within myself and look forward to more things.”



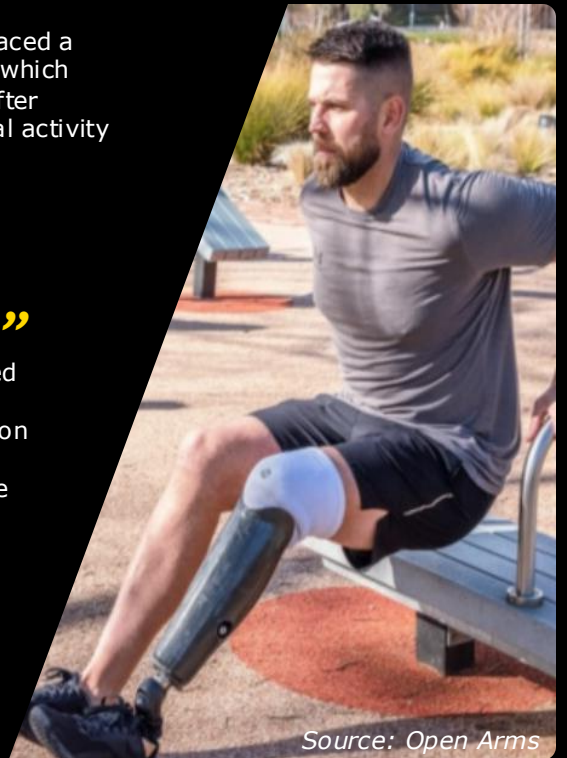
CASE STUDY

Nathan Whittington, a former serving Defence member, faced a significant change in his life after a water-skiing accident which resulted in a below knee amputation only a few months after enlistment with the Australian Army. He turned to physical activity and the support of his military peers to regain stability.

“ *Physical activity, not necessarily sport, has been a massive thing for me, especially being an amputee. It's one of the few things where I get to feel normal again, going to the gym or doing some form of exercise.* ”

After a further nine years in the military, Nathan was faced with another challenge of transitioning to civilian life brought further mental health issues. With recommendation by his peers in the military, Nathan accessed counselling services through Open Arms that had played a crucial role in his recovery.

This support allowed him to reclaim control of his life, and today, he runs a personal training business. Nathan actively encourages fellow veterans to seek help when needed, emphasising the importance of mental health resources and continuous physical activity for those that are transitioning out of military service.



Source: Open Arms

5.2 POTENTIAL RETURN ON INVESTMENT OF SPORT ON VETERANS MENTAL HEALTH

The detailed economic analysis for this study is undertaken to obtain an understanding on the potential economic opportunity and return on investment (ROI) of sport on mental health and psychological related conditions for veterans in Australia. It is to be noted that sports has a much larger ROI overall, up to 7 times based on literature reviews. This covers economic returns in a direct, indirect and induced way, health and wellbeing benefits, as well as community benefits. Mental health is a growing yet smaller component of the overall health and wellbeing returns generated by investment in sports and the ROI analysis in this report is focused only on the aspect of mental health benefits of veterans in Australia.

There is a strong link between frequent physical activity and improvement of mental health, especially for veterans and those transitioning to civilian life. Regular physical activity and sports have been proven to not only reduce symptoms of depression, anxiety, stress and promote overall wellbeing, but also bring economic benefits to Australia. It fosters veterans' sense of belonging and connection with community by engaging with others at sports events. In contrast, veterans who are physically inactive face a higher risk of developing mental health issues, which can contribute to social isolation and feelings of loneliness, affecting productivity rates and increased medical expenditure to support these problems. Thus, mental health, physical activity, and social engagement are deeply interconnected, and sport-based programs are vital for veterans' overall wellbeing and reintegration into society.

A range of 10-15 literature reviews have evidenced the positive correlation between improvement in mental health conditions in an individual and participation in sport and recreational physical activities. For example, playing sport one to three times in a week reduces psychological distress in an individual by 34% and by 46% when played more than four times a week. Therefore, being physically active and playing sport contributes to an average of 40% reduction in psychological distress, leading to improvement for veterans with mental health conditions. In other words, veterans who are physically active are 40% more likely to overcome mental health issues compared to veterans who are physically inactive.

Following that, encouraging veterans with mental health conditions to be physically active through increased sport and recreational activities will help unlock potential economic opportunity such as mental health cost-savings. For example, by increasing the proportion of veterans that are physically active by 10 percentage points can reduce mental health costs by approximately \$230 million, that accounts for approximately 5% of the total cost of veteran's mental health in Australia of \$5.02 billion.

Investing in sports for veterans not only enhances physical health and social connections, but also plays a crucial role in promoting mental health improvements. The potential return on investment of sport as an upstream intervention on veterans' mental health and psychological related conditions in Australia is 2.5, implying that for every dollar invested into sport for veterans generates about two and a half times savings to the economy in terms of mental health costs. For example, an investment of \$1,000 into sports programs for veterans will return about \$2,500 worth of cost-savings to the Australian economy due to economic and attributable social benefits resulting from mental health improvement in veterans.

Average of **40% reduction** in **psychological distress** by being **physically active** and **participating in sport**

Increasing the proportion of **veterans** that are **physically active** by **10 percentage points** can reduce mental health costs by approx. **\$230 million**

Investing in sport as an upstream intervention for **veteran's mental health** can deliver **2.5x cost-savings** to the Australian economy

6. OPPORTUNITIES OF SPORT FOR AUSTRALIA'S DEFENCE COMMUNITY

Using sport as an upstream intervention means implementing sports programs early in veterans' lives to address or prevent mental, physical, and social challenges before they escalate. It aims to reduce risks, such as mental health deterioration and physical decline, by promoting overall wellbeing. Through regular participation in physical activities, veterans can experience enhanced mental resilience, physical recovery, social integration, and a reduction in negative health outcomes, such as suicidality. The goal is to provide a proactive, rather than reactive, approach to health and wellbeing.

In summary, sport offers mental health support by reducing stress, anxiety, and PTSD symptoms, while promoting physical rehabilitation and fitness. Socially, sport fosters camaraderie, reducing isolation and improving reintegration into civilian life for those who left the military. To amplify these benefits in Australia, there are opportunities to invest in accessible sport programs, veteran-specific initiatives, and partnerships across the ecosystem (including community-based organisations, sporting organisations, ESOs, etc.), creating sustainable support networks that leverage sport's holistic advantages for veteran and their family's wellbeing.

Invest in veteran specific sport programs and initiatives

Australia can invest in sport as an upstream intervention for veterans' overall wellbeing by creating additional targeted, veteran-specific sport programs that are inclusive and accessible. Leveraging the AIHW veteran-centred model, these programs could be designed to address physical rehabilitation, mental health, and social connection, providing veterans and their families with a supportive community. There are many existing sport programs for veterans in Australia and can be invested in to encourage more participation and involvement by veterans, their families, and the wider communities. Moreover, investing in sport as an upstream intervention for veteran's mental health can deliver 2.5 times cost-savings to the Australian economy, in terms of mental health costs.

Partnerships between government, local sports clubs, ESOs and others

Additionally, partnerships between government, local sports clubs, and veteran organisations or ESOs can help expand resources or capacity and facilities across the ecosystem to enable sport intervention in veterans and their families' lives, especially post-military. With around 70,000 sports clubs in Australia, there are opportunities for collaboration at a local community level to also maximise social capital benefits. Moreover, strategic alliances between sporting organisations and ESOs can foster cross-organisation synergies and enhance broader coordination, leading to greater program scale and improved cost-efficiencies in delivering sport-based programs for veterans and their families.

Additional researches on measurable sport impacts on veteran health

There is limited measurable evidence on the economic impacts of sport on the health and wellbeing of veterans and their families. While many studies show positive impacts of sports on mental, physical, and social wellbeing, comprehensive data linking these to financial or societal returns is limited. Further targeted research and consistent data collection in these areas will help uncover indirect and opportunity costs impacts that are typically hidden costs to the economy, informing better assessment of the long-term benefits of sport for veterans and their families in Australia. Research to measure sport's impact on veterans' mental health and suicidality would also further enhance evidence-based practices, ensuring continuous improvement of these programs.

In line with the Royal Commission Report's recommendations on harm prevention and wellbeing support for Defence personnel, sport can serve as an early and continuous intervention to promote and enhance their overall health, especially from a mental and psychological health perspective. This approach ensures that veteran's personal wellbeing is prioritised alongside operational readiness and defense capability. It also focuses on reducing psychological distress, facilitating injury recovery, and providing a robust transition support system for veterans and their families. Utilising sport as an upstream engagement strategy also yields economic benefits, influencing broader policy decisions to enhance veterans' health and wellbeing.

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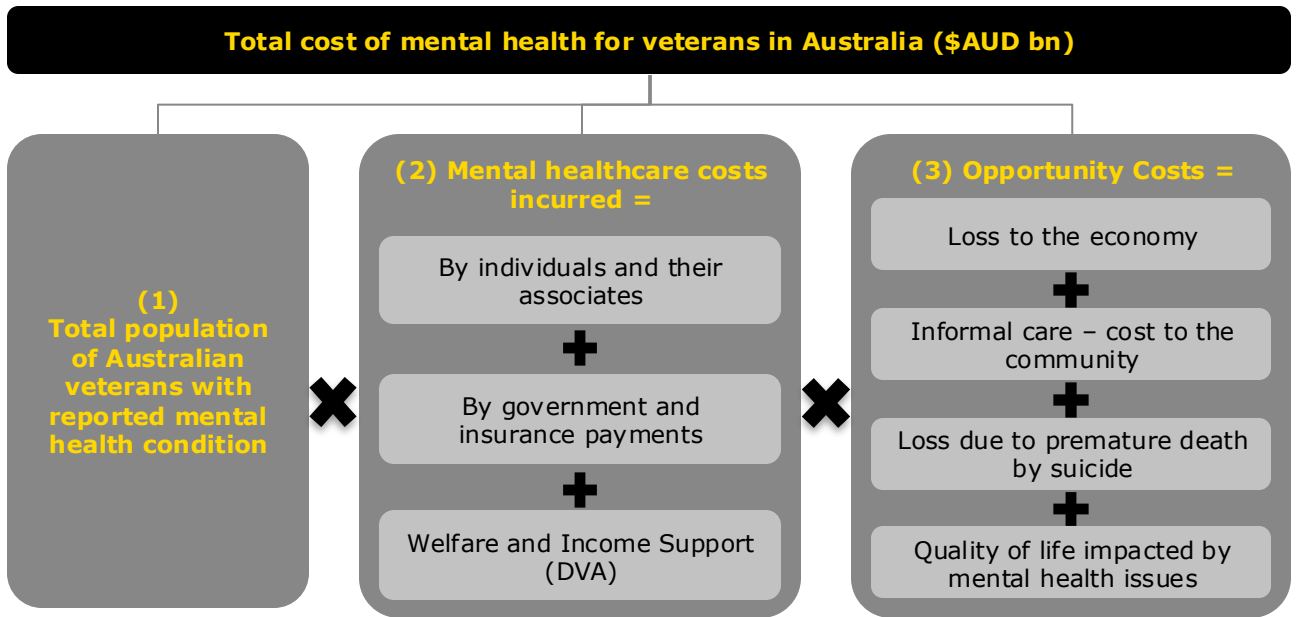
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8. APPENDIX

Appendix 1:

Total cost of mental health for veterans in Australia (Section 4.1)

We used the following parameters and sources to calculate the total cost of mental health conditions for veterans in Australia.



#	Parameter	Source
(1)	Total population of Australian veterans with reported mental health condition	ADF Census of 2021 (ABS)
(2) Mental healthcare costs incurred:		
	By individuals and their associates	Paying the price – out-of-pocket payments for mental health care in Australia Sebastian Rosenberg, A., Shin Ho Park, A., and Ian Hickie, A.; numbers extrapolated from 2021/22 to 2021/22 using the recorded data year's CAGR
	By government and insurance payments	AIHW Health Expenditure Database for period of 2021-22
	Welfare and Income Support (DVA)	Veteran Mental Health and Wellbeing Strategy and National Action Plan 2020-2023 (dva.gov.au)
(3) Opportunity costs:		
	Loss to the economy, premature death by suicide, and quality of life impacted by mental health issues	Australian Government's Productivity Commission's report "Mental Health - Inquiry Report, Actions and Findings"
	Informal care – cost to the community	Diminic, S., Hielscher, E., Lee, Y. Y., Harris, M., Schess, J., Kealton, J., & Whiteford, H. (2017). The economic value of informal mental health caring in Australia. MIND Australia

Note - All data points have been brought forward to 2022 AUD values

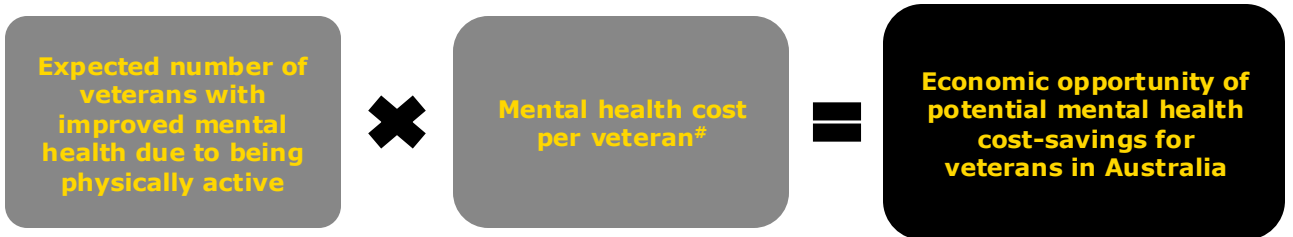
Appendix 2:

Method used to assess the potential economic opportunity i.e., cost reduction through increased sport and recreation (part of Section 5.2)

We leveraged two key levers to calculate the potential reduction of mental health cost for veterans in Australia through community sports as an intervention.

#	Lever	Source
(1)	Reduction on mental health incidence by being physically active	Based on findings of “veterans who are physically active are 40% more likely to overcome mental health issues compared to veterans who are physically inactive”, ascertained by literature review of over 15 research publications (refer list of publications in the Appendix).
(2)	Increase in proportion of physically active veterans by percentage points	Assumed increase by 10 percentage points, based on very conservative effort required from the sports community and ecosystem

Therefore, the factor of 40% x 10% gives us the 4% reduction of mental health patients amongst veterans and subsequently, the mental health cost-savings. The resultant number has been calculated factoring in other levers like current mental health population among veterans in Australia and their mental health costs as detailed in Section 4.1, leading to the estimate of the economic opportunity of potential mental health cost-savings correlated to increase in proportion of physically active veterans.



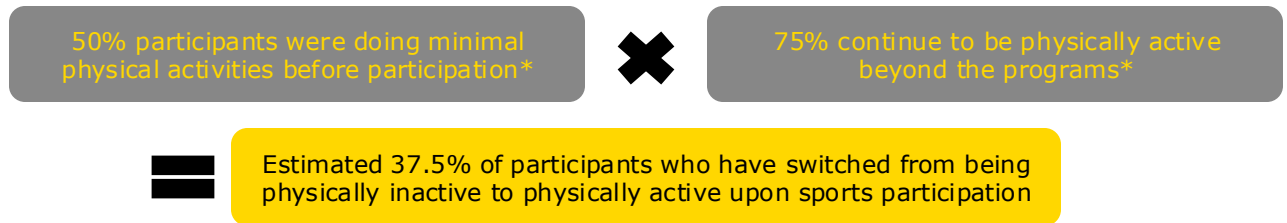
Note that the conversion rate of a physically inactive veteran to a physically active veteran upon participating in sport (which is currently limited in public availability) is a key metric to be measured and tracked across the ecosystem, to enable consistent measure of the impact on their mental health as a result of the switch from physical inactivity. With more of this data being recorded and being made available for research, this number can be further verified against in the coming years.

- 1 - Literature review, see appendix 3
- * - Accenture’s conservative assumption
- # - Accenture’s research

Appendix 3:

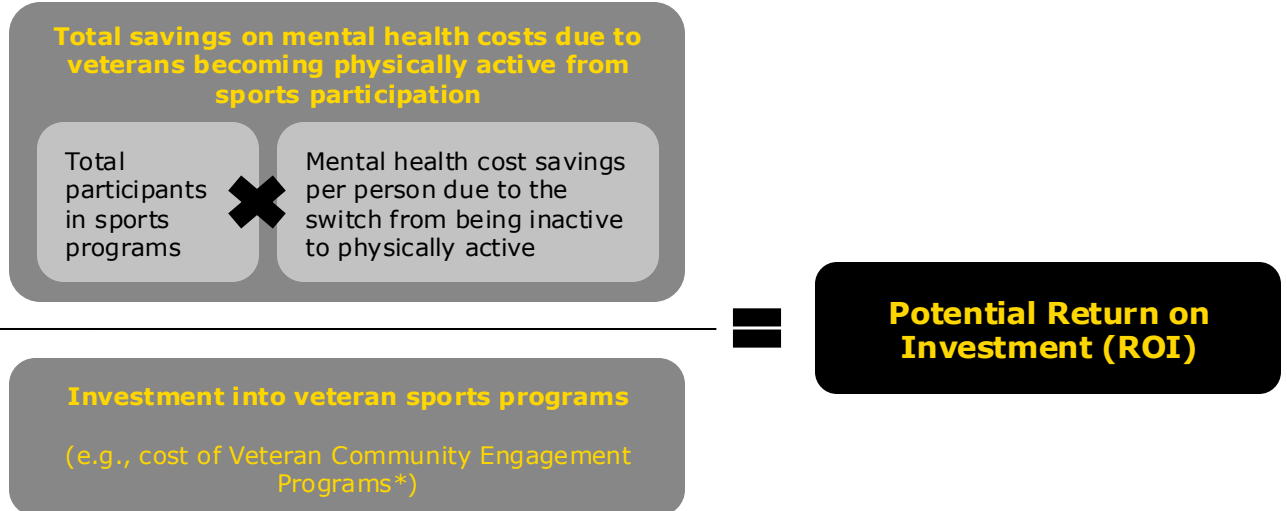
Method used to assess the return on investment of sport as an upstream intervention on the mental health and psychological related conditions for veterans in Australia (Section 5.2)

We have leveraged the estimated costs of veteran community sports program and number of participants in these programs, shared by Invictus Australia. Based on the sport programs, 50% of participants are doing minimal physical activities while 75% continue to be physically active beyond the programs, resulting in an estimate of 37.5% of participants who have switched from being physically inactive to physically active upon sports participation.



We utilised the mental health cost per person derived in previous calculation (Section 4.1) and factored in the abovementioned conversion rate of physical inactivity and the cost of the community sports program as the investment base, resulting in a potential return on investment (ROI) ratio which reads as “every 1 AUD invested into sport for veterans generates a 2.5 times savings to the economy in terms of mental health costs”.

An illustration of the calculation on potential ROI is as below:



Appendix 3 (continuation):

Method used to assess the return on investment of sport as an upstream intervention on the mental health and psychological related conditions for veterans in Australia (Section 5.2)

The list of literature review supporting the model and assessment of Section 5.2 is as below:

No.	Study	Period	Target Population	Change in mental health condition from physical activity
1	Economics of sport and physical activity participation and injury, Data - Australian Institute of Health and Welfare (aihw.gov.au)	2018-19	Australia	If all Australians adhered to the recommended minimum physical activity levels, in 25 years' time, the burden of anxiety could be reduced by up to 6.4%, and for depression could be reduced by 4.4%
2	Physical Activity and Depression and Anxiety Disorders in Australia: A Lifetable Analysis - PMC (nih.gov)	2019	Australia (Mental Health Patients only)	-
3	SportWest ABN: 99 291 159 160 For further information, please contact: SportWest SportHQ 203 Underwood Avenue Floreat WA 6014	2020	Western Australia	-
4	Physical activity and generalized anxiety disorder: results from The Irish Longitudinal Study on Ageing (TILDA) International Journal of Epidemiology Oxford Academic (oup.com)	2009-13	Ireland	Reduced the odds of developing the generalised anxiety disorder after 2 years (of PA) by 57%
5	The relationship between organised recreational activity and mental health (dlqsc.wa.gov.au)	2017	Western Australia	playing sport reduces psychological distress by 34% 1-3 times a week and 46% 4+ times a week
6	Sport and exercise save the Australian health system more than they cost in injuries - Australian Institute of Health and Welfare (aihw.gov.au)	2018-19	Australia	
7	How to look after your mental health using exercise Mental Health Foundation		UK	Studies show that there is approximately a 20% to 30% lower risk of depression and dementia for adults participating in daily physical activity. Physical activity also seems to reduce the likelihood of experiencing cognitive decline in people who do not have dementia. Physical activity can reduce anxiety levels in people with mild symptoms and may also help treat clinical anxiety.
8	Intergenerational Review of Australian Sport 2017	2017	Australia	-

No.	Study	Period	Target Population	Change in mental health condition from physical activity
9	THE ECONOMIC AND SOCIAL BENEFITS OF CLUBBASED FOOTBALL IN WESTERN AUSTRALIA	2017-18	Western Australia	-
10	sprinter-quantifying the economic impact of sport active recreation-kd1-final_report.pdf (nsw.gov.au)	2017	Global	<ul style="list-style-type: none"> - Organised sport can also act as a mediator between negative experiences and the depressive symptoms that follow. - An increase in physical activity in adults was also found to protect against the onset of anxiety 10-15 years later. - (Australian) Indigenous youth who participate in sport were found to be 1.6 times more likely to have no probable serious mental illness
11	Davies (2016), Assess the social return on investment in sport and develop a participation wide model for England.	2016	UK	In 2013/14, £23.46 billion was spent on participating in sport by the public and private sectors, social benefits created totalled £44.75 billion.
12	Marlier (2015), Aim: uncover how sport participation, physical activity, social capital and mental health are interrelated by examining these outcomes in one model.	2015	Europe	Sport participation ($\beta = .095$) and not total physical activity ($\beta = .027$) was associated with better mental health; individual social capital was directly associated with mental health
13	Cecchini JA, Carriedo A, Fernández-Río J, Méndez-Giménez A, González C, Sánchez-Martínez B, et al. A longitudinal study on depressive symptoms and physical activity during the Spanish lockdown. Int J Clin Health Psychol. 2021;21(1):100200.	2021	Spain	At least 4 h of MVPA reduced by 49% odds of depressive symptoms
14	Méndez-Giménez A, Cecchini JA, Fernández-Río J, Carriedo A. Physical activity and prevention of depressive symptoms in the Spanish population during confinement due to COVID-19. Psicothema. 2021;33(1):111-7.	2021	Spain	At least 477 METs-min/week was associated with a 33% decrease in the probability of depressive symptoms
15	Méndez-Giménez A, Cecchini JA, Fernández-Río J, Carriedo A. Physical activity and prevention of depressive symptoms in the Spanish population during confinement due to COVID-19. Psicothema. 2021;33(1):111-7.	2021	Spain	At least 3000 METs-minute/week reduce the odds of depressive symptoms by 47%
16	'More Important Than Winning': a Retrospective Online Research Survey Evaluating the Effects of Participating in an Adaptive Sports Program for Wounded, Injured and Ill Australian Defence Force Veterans - JMVH	2022	Australia (Veterans only)	78% reported greater engagement in physical activity after participation, and 89% reported that they had experienced a positive effect on their rehabilitation pathway

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