Australian Government
Australian Institute of Health and Welfare

Veteran social connectedness

Web report | Last updated: **26 Oct 2023** | Topic: Veterans

About

This report presents key insights into the social connectedness of Australians who have ever served in the Australian Defence Force (ADF), using data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The analysis expands information on the Social Support domain of the AIHW's Veteran-centred model, and forms part of an ongoing body of work in partnership with the Department of Veterans' Affairs (DVA). It aims to explore both risk and protective factors for social isolation, loneliness, and poor community participation among Australia's veterans, as well as how these compare with people who have never served in the ADF.

Cat. no: PHE 322

Findings from this report:

- Nearly 1 in 10 (9.4%) veterans were socially isolated. This was similar to people who had never served in the ADF (11%)
- Veterans were more likely to volunteer (19%) than people who had never served in the ADF (14%)
- Nearly 1 in 5 (18%) veterans were lonely. This was similar to people who had never served in the ADF (19%)
- Veterans were more likely to be active members of associations (40%) than people who had never served in the ADF (29%)

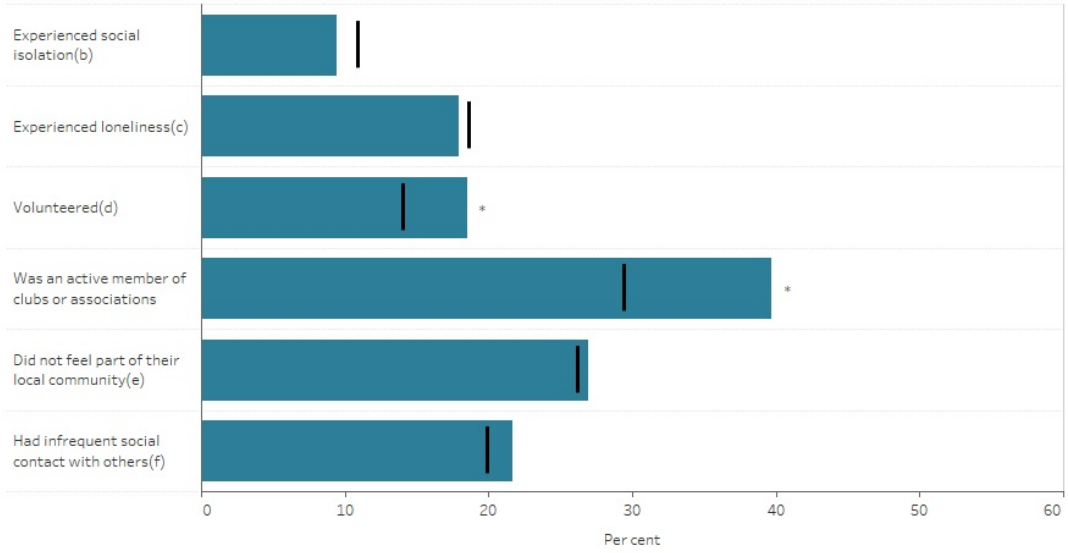
Summary

Social connectedness plays a significant role in the health and wellbeing of veterans both during and after service. Strong social connectedness has been associated with an increase in social support networks and general happiness levels with reduced severity of Post Traumatic Stress Disorder (PTSD) symptoms and lower suicidality (Flack and Kite 2021). However, the risk and protective factors against poor social connectedness are not well researched in Australia's veteran population.

For the first time in its 22-year history, Wave 21 of the Household, Income and Labour Dynamics in Australia (HILDA) survey included questions asking respondents about their service in the Australian Defence Force (ADF). This has enabled new and more granular analysis of the social connectedness of veterans than has previously been possible, including important cross-tabulations of social connectedness against related issues such as veteran mental health. Analysis of these new data can support policy, resourcing and decision-making across both the public and non-profit sectors to improve health and wellbeing outcomes for Australia's veteran community.

Analysis of Wave 21 HILDA data found that overall, Australia's veterans experienced similar or better social connectedness than the broader Australian population (Figure 1). However, analysis also revealed that some subgroups of veterans, such as those in poor general or mental health, were often at higher risk of issues with social connectedness than other veterans.

Figure 1: Overall social connectedness, by ADF service status, 2021-22
The bar chart shows measures of social isolation, loneliness, volunteering, active club or association membership, feeling part of local community and frequency of social contact. Overall, veterans were more likely to volunteer and be active members of clubs or associations than the broader Australian population.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

- Social isolation among veterans (9.4%) was similar to people who had never served in the ADF (11%). However, some subgroups of veterans were at greater risk than others. For more information, see Social Isolation.
- Loneliness among veterans (18%) was similar to people who had never served in the ADF (19%). However, some subgroups of veterans were at greater risk than others. For more information, see Loneliness.
- Nearly 1 in 5 (19%) veterans volunteered. This was higher than people who had never served in the ADF (14%). Some subgroups of veterans had particularly high rates of volunteering. For more information, see Volunteering.
- Two in 5 (40%) veterans were active members of clubs or associations. This was higher than people who had never served in the ADF (29%). Some subgroups of veterans had particularly high rates of active club or association membership. For more information, see Active membership to clubs or associations.
- Over a quarter (27%) of veterans did not feel part of their local community. This was similar to people who had never served in the ADF (26%). However, this pattern differed among subgroups of veterans. For more information, see Feeling part of a local community.
- Just over 1 in 5 veterans (22%) had infrequent social contact with persons outside their household (that is, once every three months or less). This was similar to people who had never served in the ADF (20%). However, some subgroups of veterans were at greater risk of infrequent social contact than others. For more information, see Frequency of social contact.

What support is available?

For support and counselling contact:

- Open Arms - Veterans and Families Counselling 1800 011 046
- Defence All-hours Support Line (ASL) 1800 628 036
- Defence Member and Family Helpline 1800 624 608
- Defence Chaplaincy Support 1300 333 362
- Lifeline 13 11 14
- Beyond Blue Support Service 1300 224 636

For more information on loneliness and social isolation, see:

- Ending Loneliness Together

Introduction

Background

What is social connectedness?

Social connectedness refers to the feeling of belonging and connection to others. It includes a wide array of social aspects in a person's life, including how frequently they see other people, how supported they feel by the people around them, and whether they participate in their community. Social connectedness is a key determinant of wellbeing and is described within both the AIHW's Veteran-centred model and the Department of Veterans' Affairs (DVA) Wellbeing model (DVA 2023). For more information, see Development of a veteran-centred model: a working paper.

Social connectedness among veterans

Due to the unique nature of military service, veterans can experience both protection from, and vulnerability to, issues with social connectedness.

For example, many veterans feel a strong sense of camaraderie, trust and mateship during deployment, which can protect against social isolation and loneliness during military service (Reijen and Duel 2019).

Following re-entry to civilian life however, issues with social connectedness may arise among certain vulnerable subgroups of veterans. Most notably, international research suggests that particular groups of ex-serving veterans may be at greater risk of loneliness, such as those who live alone, are single parents, are unemployed, are in financial stress, have disability in activities of daily living, were exposed to trauma, and who experienced stress (Kuwert et al. 2013; Na et al. 2022; Reijen and Duel 2019). This may be further exacerbated by the increased risk of certain mental health issues amongst ex-serving ADF members (AIHW 2023), which is closely associated with social isolation and loneliness (McGuire et al. 2023; Teo et al. 2018).

However, several factors also exist that can protect veterans against social isolation and loneliness following their transition to civilian life, which in turn may improve their health and wellbeing outcomes. For example, recent research has revealed that active membership to veteran-specific organisations may help protect ex-serving veterans against social isolation and loneliness, and that ex-serving Australian Defence Force (ADF) members who feel connected with their former military peers have improved mental health outcomes (Kreminski et al, Russell and Russell 2018). International research suggests that feeling part of a local community and engaging in volunteering may also protect veterans from social isolation and loneliness during their transition to civilian life (Pickering and Lam 2020; Matthieu et al. 2017). Individual characteristics such as being married or partnered, having higher income, and having good social support are also linked to improved social connectedness amongst veterans internationally (Kuwert et al. 2013; Straus et al. 2021).

What is the purpose of this report?

Understanding the social connectedness of veterans is important in protecting Australia's veteran population against poor health and wellbeing outcomes, and in particular suicide once they separate from the ADF (NMHC 2017). Although international studies have explored both the risk and protective factors for social connectedness among veterans, more comprehensive research is needed to validate the effects of these factors on rates of social isolation, loneliness and community participation among Australia's veterans.

In one of the first studies of its kind within Australia, this report uses the Household Income and Labour Dynamics Australia (HILDA) Wave 21 data set to examine the social connectedness of Australians who had ever served in the ADF. More specifically, this report aims to explore how veteran social isolation, loneliness, volunteering, membership to clubs or associations, feeling part of a local community, and frequency of social contact may differ by various individual characteristics such as employment and health status, as well as how these may differ to Australians who have never served in the ADF.

This report will help facilitate the identification of potential risk and protective factors for poor social connectedness among Australia's veteran population, as well as improve the current knowledge base of both the AIHW's Social Support domain of its Veteran-Centred model, and DVA's Social support and connection domain of its Wellbeing model.

What data was used in this report?

This report analyses data from the HILDA Survey. This is a nationally representative longitudinal study of Australian households, and collects valuable information about Australian labour market dynamics, family life, economic, and personal wellbeing (Melbourne Institute). The HILDA Survey is the only study of its kind in Australia, following the lives of more than 17,000 Australians each year.

HILDA data are collected from respondents in annual "Waves", primarily through face-to-face interviews. Data have been collected since 2001 (Wave 1), and the most recent published data (Wave 21) were collected between July 2021 and March 2022 (Watson, Nesa and Summerfield 2022). This report analyses Wave 21 data, which includes new ADF service questions asking respondents whether they had ever served in the ADF, whether they were current service or ex-serving, and whether they served in the permanent service, reserves, or both.

The HILDA survey may use different sampling technique and definitions from other previously published data sources, and so may provide different estimates for the health and wellbeing outcomes of Australia's veterans. As such, definitions and findings presented in this report should not be compared to those of other publications.

For more information, see About the HILDA survey.

Who was included in the analysis for this report?

In this report, the term "veteran" is used to describe any person who has ever served in the Australian Defence Force (ADF). This is irrespective of whether they are currently serving, or have left the ADF.

To identify veterans in this report and enable comparisons to the broader Australian population, survey respondents in Wave 21 of the HILDA data set were separated into two groups for analysis using self-reported characteristics about their ADF service history:

Population group 1 – Had ever served in the ADF

This group includes people who:

- self-reported they were aged 18 years or over, and
- answered, 'Yes' when asked 'Have you ever served in the Australian Defence Force?'

This group may include permanent, reservist, and/or ex-serving ADF members. Only 650 people were identified as veterans in Wave 21, forming a small proportion of the overall Wave 21 HILDA sample.

Population group 2 – Had never served in the ADF

This group includes people who:

- self-reported they were aged 18 years or over, and
- answered 'No' when asked 'Have you ever served in the Australian Defence Force?'

This group may include dependants and spouses of serving and ex-serving ADF members, as well as the broader Australian population.

Throughout this report, comparisons are also made between different subgroups of veterans to assist in identifying potential risk and protective factors for poor social connectedness. For example, rates of loneliness may be compared between veterans with or without disability, or between veterans who lived alone versus in other family structures.

What veteran subgroups did we explore?

In addition to reporting overall rates of various measures of social connectedness among veterans, this web report disaggregates the veteran population further by individual characteristics to identify subgroups who may be at increased or decreased risk of poor social connectedness.

Overall, 15 subgroups of veterans were explored in the analysis for this report:

- defence workforce type
- whether current or ex-serving
- DVA client status
- sex
- age
- labour force status
- financial stress
- remoteness area
- state or territory of residence
- general health status
- mental health status
- psychological distress
- disability status
- disability severity
- family type

However, some subgroups were omitted from commentary in instances where numbers were too small to publish, or where the quality of the data caused results to be too unreliable for inclusion in this report.

For more information on why each subgroup was selected for analysis in this report, see More information on risk and protective factors explored in this report.

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A profile of veterans in Wave 21 of HILDA

Nearly half (49%) of veterans in HILDA

were aged 65 years and older. This older cohort was larger than seen among people who had never served in the ADF (20%).

1 in 6 older veterans

(aged 65 years and older; 16%) had severe or profound disability. This was higher than those who had never served in the ADF of the same age (9.0%).

89% of veterans in HILDA

were ex-serving, while 11% were current serving.

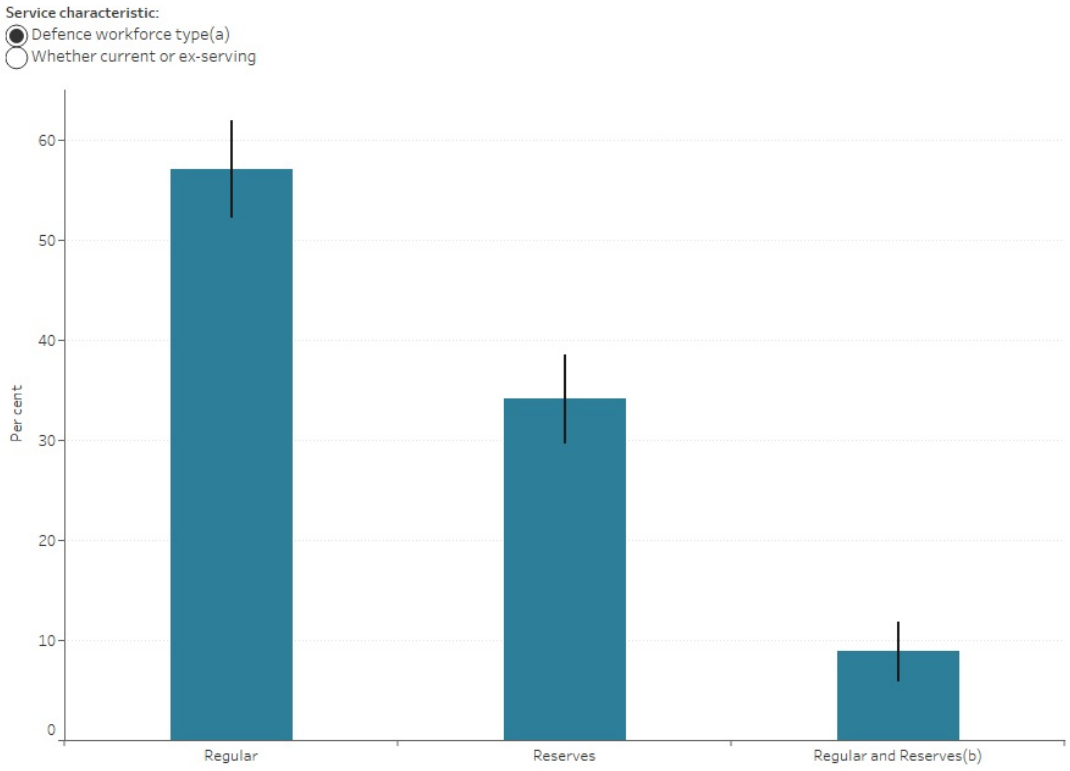
Analysis of self-reported data from Wave 21 of HILDA indicated that the profile of people who had ever served in the ADF (herein referred to as 'veterans') was notably different from people who have never served in the ADF. This was the case across many different characteristics discussed throughout this report.

Service characteristics

- Over half of all veterans in the HILDA data set (57%) had served in the regular service, 34% in the Reserves, and 8.9% had served in both.
- Most (89%) veterans in Wave 21 of HILDA were ex-serving ADF members, while 11% were current serving members.

Figure 2: Veterans within Wave 21 HILDA data, by service characteristics, 2021-22

The bar charts shows propotions of veterans in either Regular, Reserves or Regular and Reserves, and proportions in Current-serving and Ex-serving. Findings show that 57% of veterans had served in the regular service, and that 89% of veterans were ex-serving.



Notes:
(a) Includes both current and former persons who have served in the Australian Defence Force (ADF).
(b) Due to small cell counts, also includes those who responded 'Don't know' when asked whether they had served in the Regular Service or in the Reserves Service.

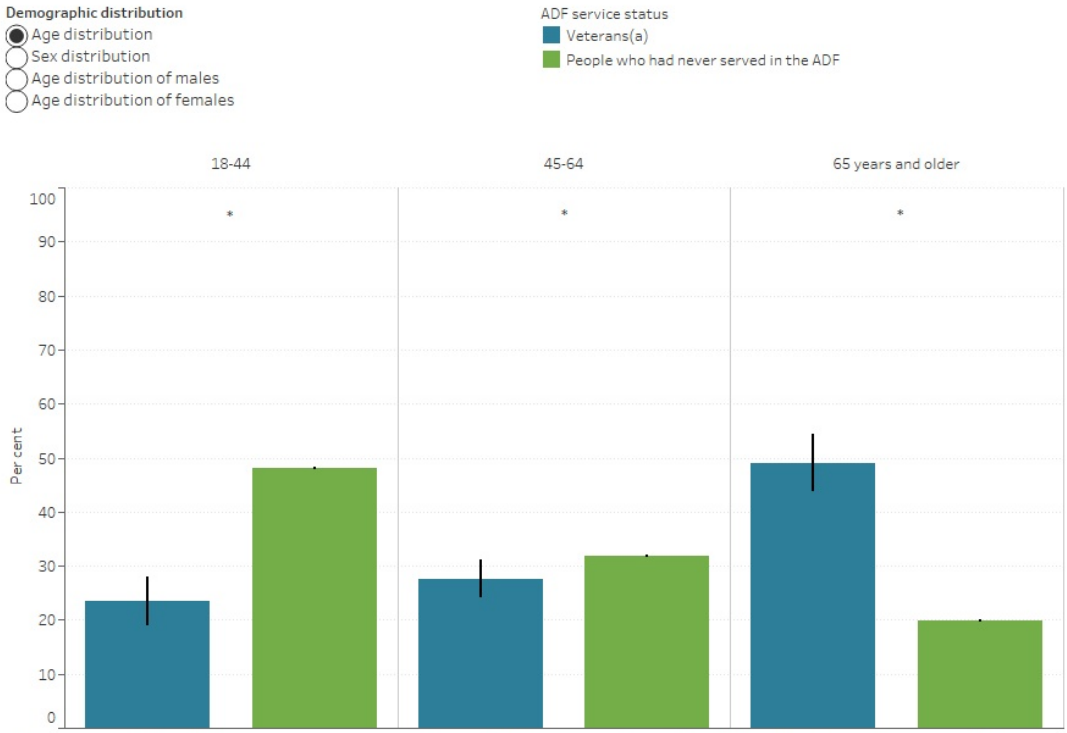
Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

Age and sex characteristics

- Nearly half of all veterans in the HILDA data set (49%) were aged 65 years and older. This older cohort was more than twice as large as that seen among people who had never served in the ADF (20%).
- Most (89%) veterans in Wave 21 of HILDA were male. This was nearly twice as large as the proportion of males among people who had never served in the ADF (47%).

Figure 3: Age and sex distributions within Wave 21 of HILDA, by ADF service status, 2021-22

The bar charts show proportions of veterans population distributed by age and by sex. Findings show that veterans were more likely to be aged 65+, and more likely to be male, than the broader Australian population.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

One or both proportions in this comparison have a margin of error greater than 10% and should be used with caution

Notes:
(a) Includes both former and current persons who have served in the Australian Defence Force (ADF). Includes Reservists.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

Individual characteristics

For information regarding the subgroups discussed in this section, see What veteran subgroups did we explore?

Overrepresentation in veteran subgroups

Compared with people who had never served in the ADF, veterans in Wave 21 of HILDA were more likely to:

- **not be in the labour force**[1] (53%, compared with 33% of people who had never served in the ADF)
- **live outside of *Major cities*** (29% in *Inner regional* areas and 19% in *Outer regional and remote* areas, compared with 23% and 8.8% of people who had never served in the ADF)
- **be in poor general health**[2] (18%, compared with 11% of people who had never served in the ADF)
- **have any disability** (50%, compared with 31% of people who had never served in the ADF)
- **have severe or profound disability** (9.2%, compared with 4.0% of people who had never served in the ADF)
- **live as a couple family without children** (46%, compared with 26% of people who had never served in the ADF).

However, most of the above findings appear to be influenced by age. Most notably, the overrepresentation of veterans not in the labour force disappears when comparing age-specific rates, suggesting the finding is likely explained by most veterans in Wave 21 of HILDA being 65 years and older. The increased likelihood of having any disability or living as a couple family without children only holds true for veterans aged 45 years and older, while the increased likelihood of being in poor general health only holds true for veterans aged 65 years and older.

For more information regarding age-specific rates and comparisons of overrepresented characteristics in the veteran cohort, see Supplementary Table 1.3 accompanying this report.

Underrepresentation in veteran subgroups

Compared with people who had never served in the ADF, veterans in Wave 21 of HILDA were less likely to:

- **be employed full-time** (37%, compared with 44% of people who had never served in the ADF)
- **be employed part-time** (8.0%, compared with 21% of people who had never served in the ADF)
- **be in poor mental health**[2] (16%, compared with 20% of people who had never served in the ADF)
- **be in high or very high psychological distress**[3] (16%, compared with 25% of people who had never served in the ADF)
- **live in a couple family with dependent children** (19%, compared with 33% of people who had never served in the ADF)
- **live as a single parent** (5.4%, compared with 10% of people who had never served in the ADF).

However, most of the above findings appear to be influenced by age. Most notably, the underrepresentation of veterans living as a couple family with dependent children disappears when comparing age-specific rates, suggesting this finding is likely explained by most veterans in Wave 21 of HILDA being 65 years and older. The decreased likelihood of being in poor mental health or in high or very high psychological

distress only holds true for veterans aged 18 to 44, while being employed part-time or living as a single parent only holds true for veterans aged 18 to 64.

For more information regarding age-specific rates and comparisons of underrepresented characteristics in the veteran cohort, see Supplementary Table 1.3 accompanying this report.

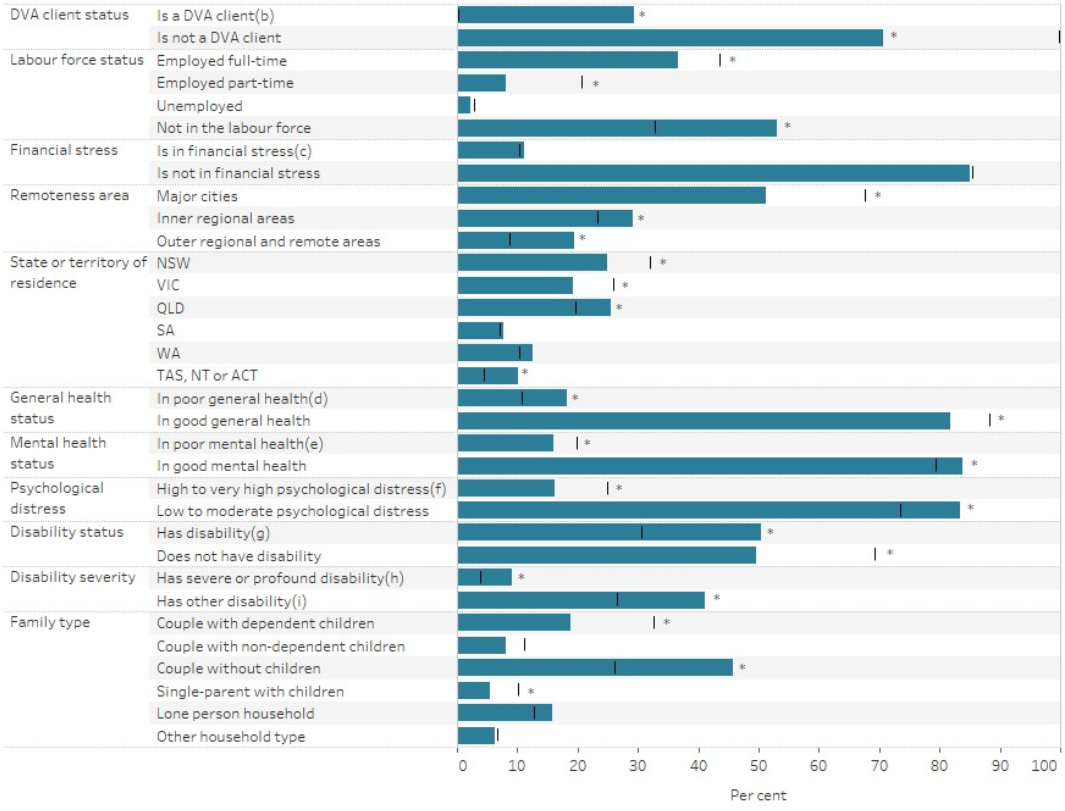
Similarities between veterans in Wave 21 of HILDA and people who had never served in the ADF

Within Wave 21 of HILDA, veterans and people who had never served in the ADF were similarly likely to:

- **be unemployed** (2.3%, compared with 2.9% of people who had never served in the ADF)
- **be in financial stress** (11%, compared with 10% of people who had never served in the ADF)
- **live alone** (16% compared with 13% of people who had never served in the ADF).

Figure 4: Profile of Wave 21 HILDA respondents, by individual characteristics and ADF service status, 2021-22

The bar chart shows proportions of veterans subgroups such as DVA client status, labour force status, financial stress, remoteness area, state or territory of residence, general and mental health status, disability status and family type. Australian population proportions are also shown. Findings show there were significant differences in the profile of veterans compared with the broader Australian population across most subgroups explored.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

Why did we explore the overall profile of veterans in Wave 21 of the HILDA survey?

Characteristics like age, sex, employment, income, geography, health, family structure and the type and nature of military service performed can all influence a veteran's social connectedness, in turn affecting their health and wellbeing outcomes.

Understanding the profile of veterans within Wave 21 of the HILDA survey assists in identifying any over- or under-representations of these subgroups within Australia's veteran population. This may enable the identification of veterans who are at an increased or decreased risk of issues with social connectedness.

Footnotes

1. That is, neither working nor looking for work.

2. As measured by self-reported 36-Item Short Form Health Survey (SF-36) responses within HILDA.

3. As measured by Kessler Psychological Distress Scale (K10) questions administered within HILDA.

Social isolation and loneliness

Social isolation and loneliness can be harmful to both mental and physical health. They are considered significant health and wellbeing issues in Australia because of the impact they have on peoples' lives. Some of the measures implemented in response to the COVID-19 pandemic, such as physical isolation and lockdowns, may have exacerbated pre-existing risk factors for social isolation and loneliness, such as living alone (AIHW 2023, Lim et al. in press).

Difference between social isolation and loneliness

Social isolation 'means having objectively few social relationships or roles and infrequent social contact' (Badcock et al. 2022). It differs from loneliness, which is 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' (Badcock et al. 2022). The 2 concepts may, but do not necessarily, co-exist – a person may be socially isolated but not lonely, or socially connected but feel lonely (Badcock et al. 2022; Relationships Australia 2018).

References

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Social isolation and loneliness

9.4% of all veterans

experienced social isolation. This was similar to people who had never served in the ADF (11%).

Veterans in poor general health

were more likely to experience social isolation (26%) than veterans in good general health (5.8%). This pattern was similar to people who had never served in the ADF (27% and 8.8%).

Veterans who served in the regular service

were over twice as likely to experience social isolation (12%) as those who served in the Reserves (5.0%).

How did we measure social isolation in veterans?

As part of the HILDA self-completion questionnaire, respondents were asked how much they agree with 10 statements about the amount of social support available to them. These statements focused on themes such as visits from people, access to help, lack of confidants and the ability to reach out for support when needed.

A person's level of agreement with these statements was used to calculate scores on the Index of Social Support (ISS), which can range from -30 to +30 (Flood 2005). A high score on the ISS indicates no lack of social support, while a low score indicates social isolation (Relationships Australia 2018).

Based on responses to these survey questions, respondents were disaggregated into two subgroups for analysis:

- **Experienced social isolation** - indicated by ISS scores of -30 to -1.
- **Did not experience social isolation** - indicated by ISS scores of 0 to 30.

People who did not complete the self-completion questionnaire for all 10 questions about social support were excluded from this analysis.

On this page, only the proportions of people who indicated that they experienced social isolation (that is, who had an ISS score of between -30 and -1) are reported.

Comparing to people who have never served in the ADF

Overall, analysis of self-reported data from Wave 21 of HILDA indicated that people who had ever served in the ADF (herein referred to as 'veterans') experienced social isolation at a similar rate to people who had never served in the ADF (9.4% compared with 11%, respectively).

Some subgroups of veterans were at lower risk of social isolation than people who had never served in the ADF from the same subgroups. This includes veterans who were:

- **aged 18 to 44** (7.8%, compared with 12% of people who had never served in the ADF)
- **not in the labour force** (that is, neither working nor looking for work) (9.1%, compared with 13% of people who had never served in the ADF)
- **in good general health** (5.8%, compared with 8.8% of people who had never served in the ADF)
- **without disability** (5.0%, compared with 8.8% of people who had never served in the ADF)
- **frequently in social contact with others** (2.4%, compared with 5.6% of people who had never served in the ADF).

Other subgroups of veterans experienced social isolation at rates similar to people who had never served in the ADF. No subgroups of veterans experienced social isolation at rates higher than people who had never served in the ADF.

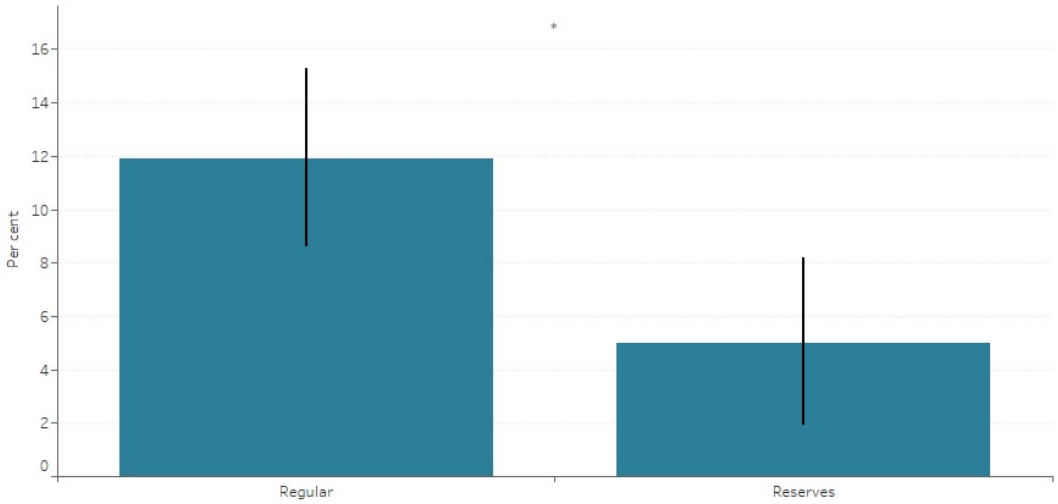
Comparing between subgroups of veterans

Some subgroups of veterans were at higher risk of social isolation than others. This includes veterans who:

- **had served in the regular service** (12%, compared with 5.0% of veterans who had served in the reserves)[4] (Figure 5)
- **had infrequent social contact with others** (26%, compared with 2.4% of veterans who were frequently in social contact with others)[5]
- **were in poor general health** (26%, compared with 5.8% of veterans in good general health)[6]
- **did not feel part of their local community** (19%, compared with 5.5% of veterans who felt part of their local community) [7]
- **had disability** (14%, compared with 5.0% of veterans without disability) [8]
- **were not active members of clubs or associations** (12%, compared with 5.6% of veterans who were active members of clubs or associations)[9]
- **were aged 45 to 64** (14%, compared with 7.4% of veterans aged 65 years and older)[10] (Figure 6).

Figure 5: Rates of social isolation, by defence workforce type, 2021-22

The bar chart shows rates of social isolation of veterans by defence worktype. Findings show that veterans who had served in the regular service were more likely to be socially isolated than veterans who had served in the Reserves.



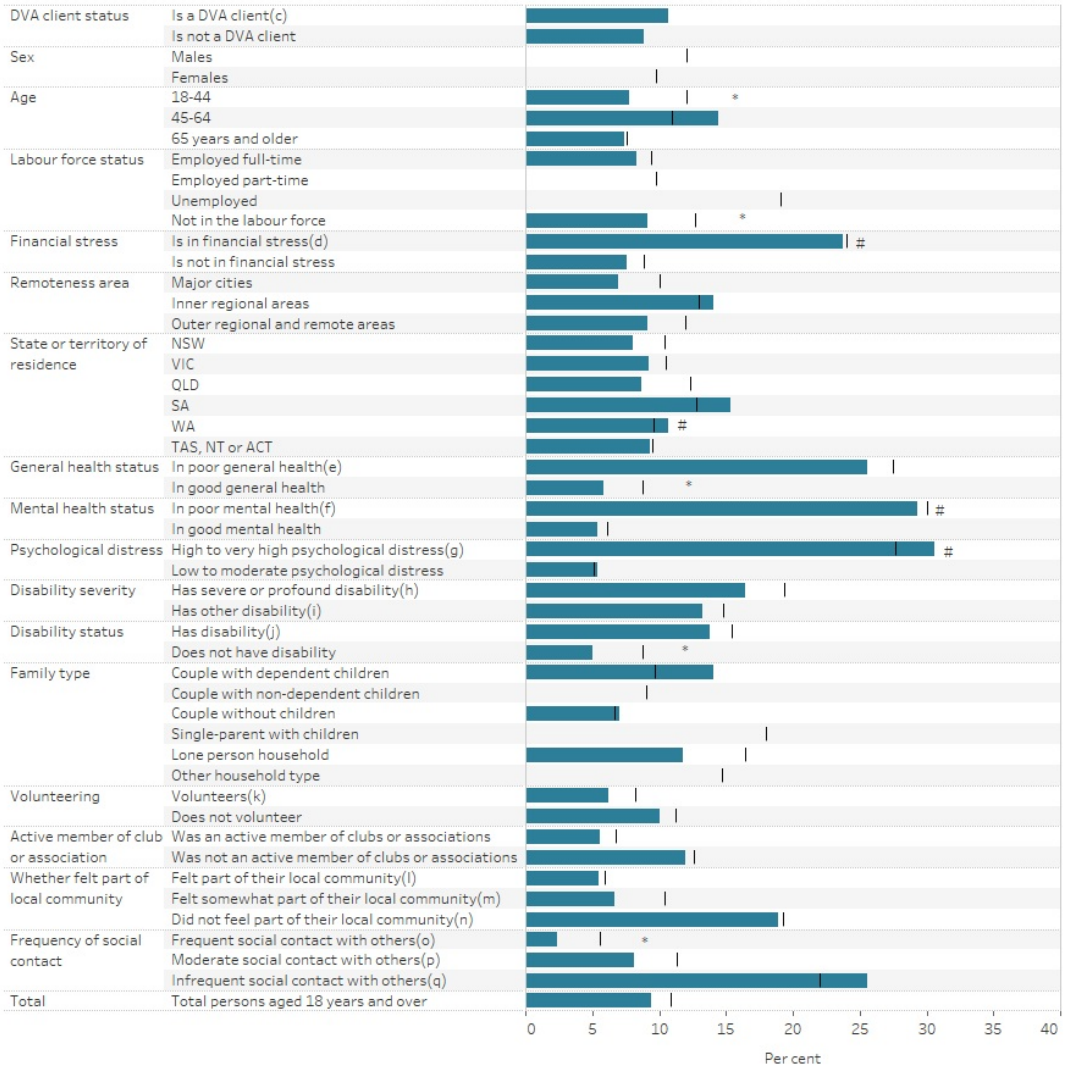
* A statistically significant difference between veterans who had served in the regular service and veterans who had served in the Reserves, calculated using the confidence interval of the difference between the two proportions.

Notes:
(a) Includes both current and former persons who have served in the Australian Defence Force (ADF).
(b) People with an ISS score between -30 and -1 was classified as having experienced social isolation.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

Figure 6: Rates of social isolation, by individual characteristics and ADF service status, 2021-22

The bar chart shows rates of social isolation by individual characteristics. Findings show that no subgroups of veterans experienced social isolation at rates significantly higher than the same subgroups in the broader Australian population



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

One or both proportions in this comparison have a margin of error greater than 10% and should be used with caution.

Missing values in this chart indicate that the rate has been suppressed due to small numbers.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

Why did we measure social isolation among veterans?

Social isolation refers to the lack of relationships with family and friends on an individual level, and with society on a broader level (AIFS 2022). Social isolation considers the extent, range, and depth of an individual's social network. Social support networks are important as they can enhance resilience to stress, help protect against developing trauma related disorders, and reduce medical mortality (Ozbay et al. 2007). Without them, an individual may become socially isolated and may experience poor physical and mental health, such as an increased risk of high blood pressure, cognitive decline, depression, and mortality (McGuire et al. 2023).

Previous research on social support using HILDA data has indicated that Australians tend to have higher social support if they are either aged 65 and over, have higher levels of education, have higher household equivalised income, are employed, or are partnered. Conversely, Australians who are unemployed or in poor general or mental health tend to have lower social support (Wilkins et al 2022).

Some veterans may be at higher risk of becoming socially isolated when they re-enter civilian life. For example, the geographical mobility and frequent deployments associated with military service may create difficulties for veterans with building and maintaining social networks. The high prevalence of exposure to trauma and associated risks of developing mental health disorders may also increase their susceptibility to the negative effects of social isolation (Wilson et al. 2018).

Footnotes

4. This comparison excludes persons who had served in both the regular and reserve service.

5. A similar result was found among people who had never served in the ADF (22% of those who had infrequent social contact with people outside their household compared with 5.6% of those frequently in social contact with people outside their household).

6. A similar result was found among people who had never served in the ADF (27% of those who were in poor general health compared with 8.8% of those in good health).

7. A similar result was found among people who had never served in the ADF (19% of those who did not feel part of their local community compared with 5.9% of those who did).

8. A similar result was found among people who had never served in the ADF (15% of those with disability compared with 8.8% of those without disability).

9. A similar result was found among people who had never served in the ADF (13% of those who were not active members of clubs or associations compared with 6.8% of those who were).

10. A similar result was found among people who had never served in the ADF (11% of those aged 45-64 compared with 7.6% of those aged 65 years and older).

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Social isolation and loneliness

18% of all veterans

experienced loneliness. This was similar to people who had never served in the ADF (19%).

Nearly one third of veterans living alone

(31%) experienced loneliness. This was similar to people who had never served in the ADF (28%).

Nearly 1 in 4 veterans with disability

(22%) experienced loneliness. This was higher than veterans without disability (13%), but similar to people who had never served in the ADF (25%).

How did we measure loneliness in veterans?

Loneliness is recorded in the HILDA Survey as 'whether often feel very lonely' on an ordinal scale from 1 (strongly disagree) to 7 (strongly agree).

For the analysis of Wave 21 HILDA data in this section, scores between 5 and 7 were categorised as having experienced loneliness, whereas scores between 1 and 4 were categorised as not having experienced loneliness.

On this page, only the proportions of people who indicated that they experienced loneliness (that is, who had scored between 5 and 7 on this survey question) are reported.

Comparing to people who have never served in the ADF

Overall, analysis of self-reported data from Wave 21 of HILDA indicated that people who had ever served in the ADF (herein referred to as 'veterans') experienced loneliness at a similar rate to people who had never served in the ADF (18% compared with 19%, respectively).

No subgroups of veterans experienced loneliness at rates higher than people who had never served in the ADF from the same subgroups. Veterans who felt somewhat part of their local community or who were in moderate social contact with others (both 11%), were less likely to experience loneliness than people who had never served in the ADF from the same subgroups (19% for those in moderate social contact with others, and 18% for those who felt somewhat part of their local community).

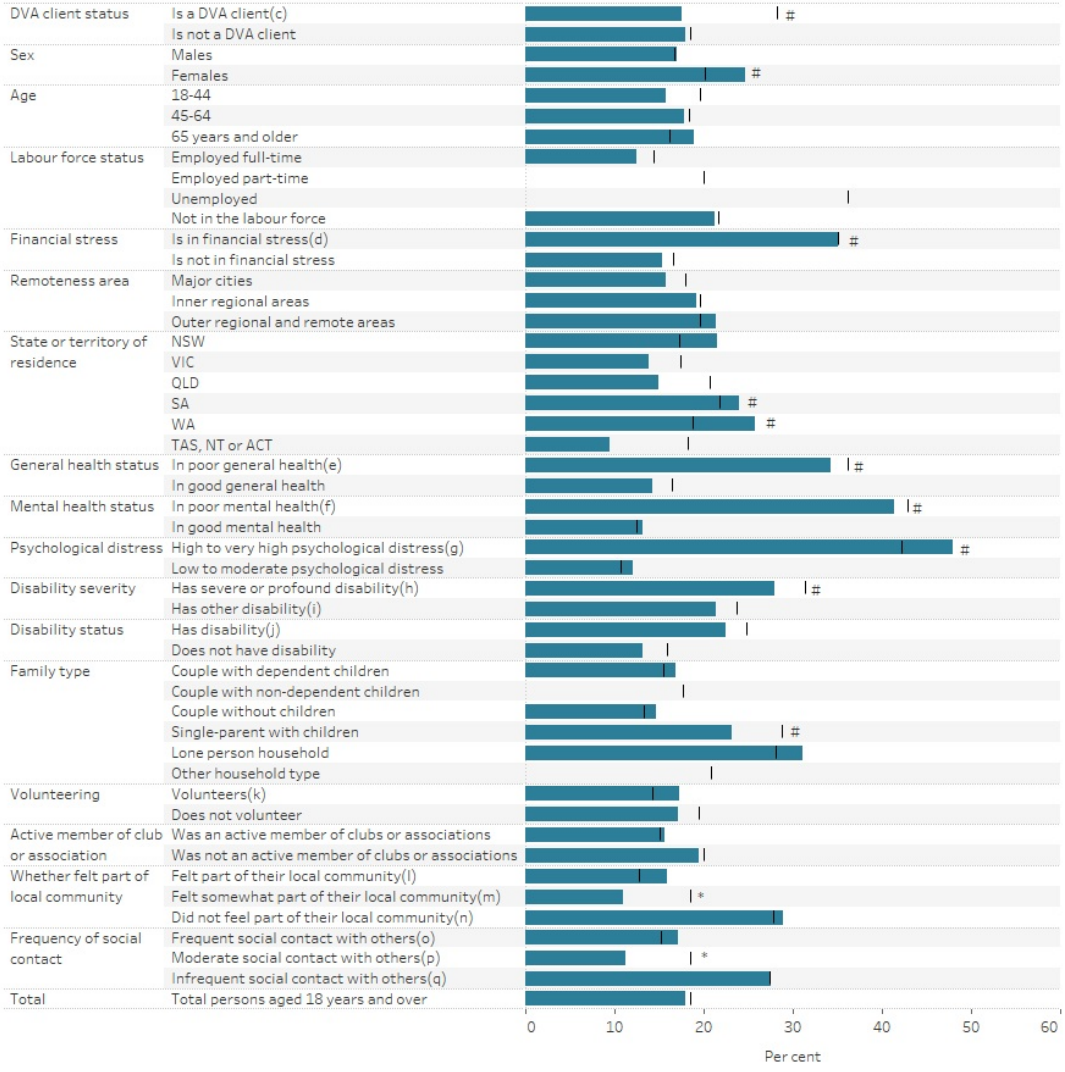
Comparing between subgroups of veterans

Some subgroups of veterans were at higher risk of loneliness than others. This included veterans who were:

- **living alone** (31%, compared with 17% of veterans living in a couple with dependent children, and 15% of veterans living in a couple without children)[11]
- **not in the labour force** (that is, neither working nor looking for work) (21%, compared with 12% of veterans who were employed full-time)[12]
- **with disability** (22%, compared with 13% of veterans without disability)[13]
- **not feeling part of their local community** (29%, compared with 16% of veterans who did feel part of their local community)[14]
- **infrequently in social contact with others** (28%, compared with 17% of veterans who were frequently in social contact with others)[15] (Figure 7).

Figure 7: Rates of loneliness, by individual characteristics and ADF service status, 2021–22

The bar chart shows rates of loneliness by individual characteristics. Findings show that no subgroups of veterans experienced loneliness at rates significantly higher than the same subgroups in the broader Australian population.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

One or both proportions in this comparison have a margin of error greater than 10% and should be used with caution.

Missing values in this chart indicate that the rate has been suppressed due to small numbers.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

Why did we measure loneliness among veterans?

Loneliness is a negative feeling that an individual experiences when they want greater social connection than they have. Several factors may influence the severity and likelihood of experiencing loneliness, such as income, functional limitations, social engagement, and the quantity of social relationships (Hutten et al. 2022; Luhmann and Hawkley 2016). Those who experience loneliness may be at higher risk of premature mortality and the development of severe mental health conditions (Holt-Lunstad et al. 2015; Hutten et al. 2022). However, there are several protective factors that are associated with low levels of loneliness, such as the quality and quantity of social engagement, supportive communities, stable and secure housing, positive family functioning, employment and having a romantic partner (Victor and Yang 2012; Hutten et al. 2022; Relationships Australia 2021).

Veterans may be more susceptible to experiencing loneliness due to their higher prevalence of physical and mental health conditions (Straus et al. 2022; Gettings et al. 2022; Austin et al. 2020). However, veterans may possess protective factors such as camaraderie with other veterans during military service, which may protect them against adverse mental health outcomes and in turn issues with loneliness (Guthrie-Gower and Wilson-Menzfeld 2022).

Footnotes

11. A similar result was found among people who had never served in the ADF (28% of those living alone compared with 16% of those living in a couple with dependent children, and 13% of those living in a couple without children).

12. A similar result was found among people who had never served in the ADF (22% of those not in the labour force compared with 14% of those employed full-time).

[13.] A similar result was found among people who had never served in the ADF (25% of those with disability compared with 16% of those without disability).

[14.] A similar result was found among people who had never served in the ADF (28% of those who did not feel part of their local community compared with 13% of those who did).

[15.] A similar result was found among people who had never served in the ADF (27% of those who had infrequent social contact with people outside their household compared with 15% of those frequently in social contact with people outside their household).

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Volunteering

Nearly 1 in 5

(19%) veterans volunteered. This was higher than people who had never served in the ADF (14%).

Veterans with disability

were more likely to volunteer (21%) than people with disability who had never served in the ADF (14%).

Veterans not in the labour force

were more likely to volunteer (22%) than people who had never served in the ADF who were not in the labour force (15%).

How did we measure rates of volunteering in veterans?

As part of the HILDA self-completion questionnaire, respondents are asked how much time they spend volunteering or engaging in charity work (for example, canteen work at the local school, unpaid work for a community club or organisation) during a typical week.

For the analysis of Wave 21 HILDA data in this section, respondents who reported spending more than zero minutes of volunteer or charity work during the week are categorised as volunteers.

On this page, only the proportions of people who indicated that they volunteered are reported.

Comparing to people who have never served in the ADF

Overall, analysis of self-reported data from Wave 21 of HILDA indicated that people who had ever served in the ADF (herein referred to as 'veterans') were more likely to volunteer than people who had never served in the ADF (19% compared with 14%, respectively).

Many subgroups of veterans volunteered at rates higher than people who had never served in the ADF from the same subgroups. This includes veterans who were:

- **male** (18%, compared with 13% of people who had never served in the ADF)
- **not in the labour force** (that is, neither working nor looking for work) (22%, compared with 15% of people who had never served in the ADF)
- **not in financial stress** (19%, compared with 15% of people who had never served in the ADF)
- **living in *Major cities*** (20%, compared with 13% of people who had never served in the ADF)
- **living in New South Wales** (23%, compared with 13% of people who had never served in the ADF)
- **with disability** (21%, compared with 14% of people who had never served in the ADF)

However, some of these findings may be explained by most veterans in the Wave 21 HILDA data being aged 65 years and older, as this older age group were more likely to volunteer than younger respondents (regardless of ADF service status). For more information on the age distribution of veterans in Wave 21 of HILDA, see A profile of veterans in Wave 21 of HILDA.

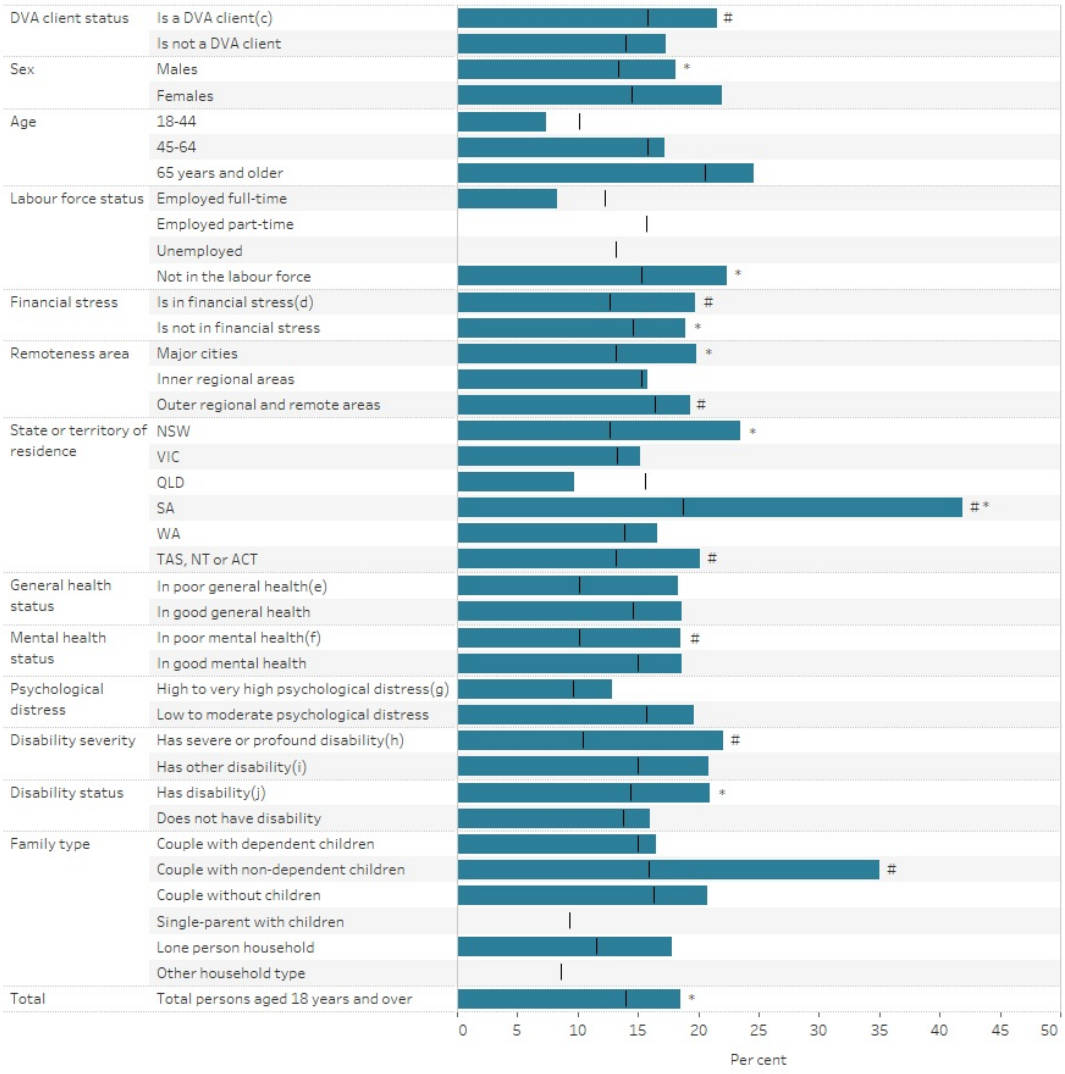
Comparing between subgroups of veterans

Some subgroups of veterans were also more likely to volunteer than others. This includes veterans who were:

- **aged 45 to 64** and **aged 65 years and older** (17% and 25% respectively, compared with 7.4% of veterans aged 18 to 44)[16 17]
- **not in the labour force** (that is, neither working nor looking for work) (22%, compared with 8.3% of veterans employed full-time)[18] (Figure 8).

Figure 8: Rates of volunteering, by individual characteristics and ADF service status, 2021–22

The bar chart shows rates of volunteering by individual characteristics. Findings show that some subgroups of veterans were more likely to volunteer than the same subgroups in the broader Australian population, such as those with disability and those not in the labour force.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

One or both proportions in this comparison have a margin of error greater than 10% and should be used with caution.

Missing values in this chart indicate that the rate has been suppressed due to small numbers.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

Why did we measure volunteering among veterans?

Volunteering refers to a person donating their time to help an organisation, or someone in need, for no financial gain (Study Australia n.d.). In addition to benefiting their communities through providing important services to others, volunteering can also broaden an individual's social network, deepen their professional skills, promote good mental health, and decrease social isolation (AIHW 2021).

According to the 2021 Census, veterans were more likely to have volunteered in the previous 12 months (21%) than people who had never served in the ADF (15%) (ABS 2022).

Without the structure and camaraderie of military life, veterans may find it hard to break into civilian social circles. By engaging in volunteer work, veterans may be able to establish connections with individuals and communities and capitalise on the training and expertise provided by the ADF to serve their communities (DVA 2022). International research has indicated that both social isolation and loneliness may decrease among some veterans after they engage in volunteering (Matthieu et al. 2017). As such, volunteering may serve to protect veterans against issues with social connectedness (Brown et al. 2012).

Footnotes

16. A similar result was found among people who had never served in the ADF (16% of those aged 45 to 64 compared with 10% of those aged 18 to 44).

17. A similar result was found among people who had never served in the ADF (20% of those aged 65 years and older compared with 10% of those aged 18 to 44).

18. A similar result was found among people who had never served in the ADF, however the size of the difference was smaller (15% of those not in the labour force compared with 12% of those employed full-time).

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Active membership to clubs or associations

40% of all veterans

were active members of clubs or associations. This was higher than people who had never served in the ADF (29%).

Veterans in *Inner regional* areas

were less likely to be active members of clubs or associations (32%) than those living in *Major cities* (46%).

Over 1 in 3 veterans with disability

(38%) were active members of clubs or associations. This was similar to veterans without disability (42%).

How did we measure whether a veteran was an active member of a club or association?

As part of the HILDA self-completion questionnaire, respondents are asked whether they are currently an active member of a sporting, hobby or community-based club or association. Those who responded “yes” were considered an active member of club or association, whilst those who responded “no” were not.

On this page, only the proportions of people who were active members of a club or association (that is, who answered “yes” to this survey question) are reported.

Comparing to people who have never served in the ADF

Overall, analysis of self-reported data from Wave 21 of HILDA indicated that people who had ever served in the ADF (herein referred to as ‘veterans’) were more likely to be active members of a club or association than people who had never served in the ADF (40% compared with 29%, respectively).

Many subgroups of veterans were active members of clubs or associations at rates higher than people who had never served in the ADF from the same subgroups. This includes veterans who were:

- **male** (40%, compared with 31% of people who had never served in the ADF)
- **aged 65 years and older** (46%, compared with 38% of people who had never served in the ADF)
- **not in the labour force** (that is, neither working nor looking for work) (42%, compared with 29% of people who had never served in the ADF)
- **not in financial stress** (42%, compared with 30% of people who had never served in the ADF)
- **living in *Major cities*** (46%, compared with 29% of people who had never served in the ADF)
- **living in New South Wales** (44%, compared with 27% of people who had never served in the ADF)
- **in good general health** (42%, compared with 31% of people who had never served in the ADF), and **in good mental health** (40%, compared with 32% of people who had never served in the ADF)
- **in poor mental health** (#36%, compared with 20% of people who had never served in the ADF)
- **with disability** (38%, compared with 27% of people who had never served in the ADF), and **without disability** (42%, compared with 31% of people who had never served in the ADF)
- **living in couple households with children** (43%, compared with 29% of people who had never served in the ADF) and **without children** (44%, compared with 35% of people who had never served in the ADF).

However, some of these findings may be explained by most veterans in the Wave 21 HILDA data being aged 65 years and older, as this age group were more likely to be active members of clubs and associations than younger respondents (regardless of ADF service status). For more information on the age distribution of veterans in Wave 21 of HILDA, see A profile of veterans in Wave 21 of HILDA.

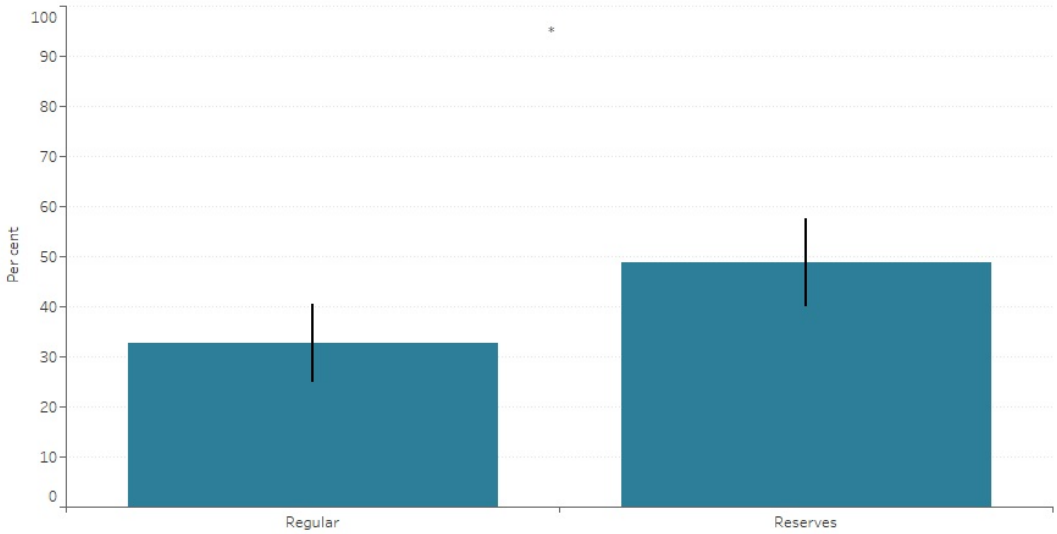
Comparing between subgroups of veterans

Some subgroups of veterans were less likely to be active members of clubs or associations than others. This includes veterans who:

- **had served in the regular service** (33%, compared with 49% of veterans who had served in the Reserves)[19] (Figure 9)
- **were aged 18 to 44** (32%, compared with 46% of veterans aged 65 years and older)[20]
- **were living in *Inner regional* areas** (32%, compared with 46% of veterans who lived in *Major cities)*. This pattern not observed among people who had never served in the ADF.
- **were in poor general health** (30%, compared with 42% of veterans in good general health)[21] (Figure 10).

Figure 9: Rates of active membership to clubs or associations, by Defence workforce type, 2021-22

The bar chart shows rates of active membership to clubs or associations by defence worktype. Findings show that Reservists were more likely to be active members of clubs or associations than veterans who served in the regular service.



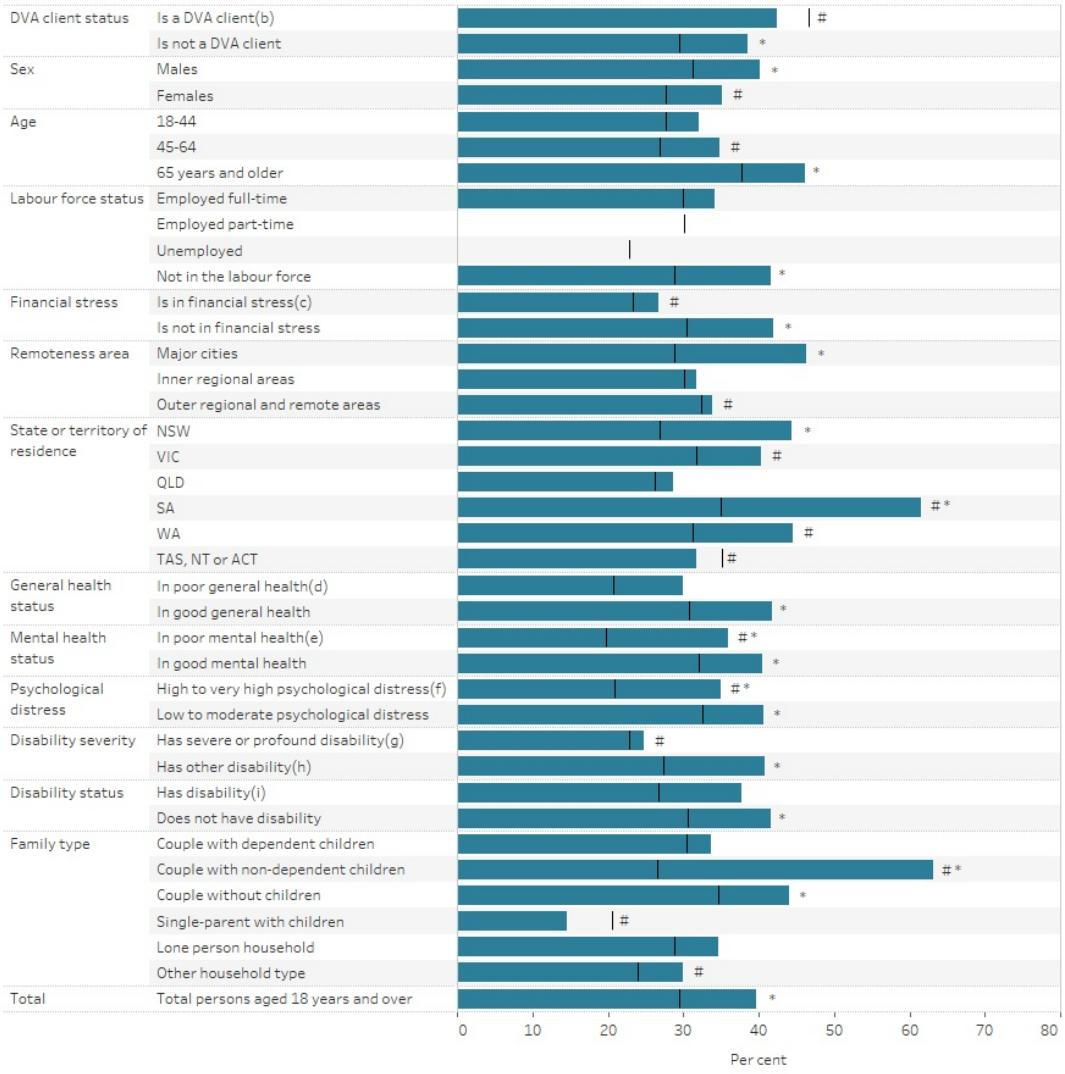
* A statistically significant difference between veterans who had served in the regular service and veterans who had served in the Reserves, calculated using the confidence interval of the difference between the two proportions.

Notes:
(a) Includes both current and former persons who have served in the Australian Defence Force (ADF)

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

Figure 10: Rates of active membership to clubs or associations, by individual characteristics and ADF service status, 2021-22

The bar chart shows rates of active membership to clubs or associations by individual characteristics. Findings show that many subgroups of veterans were more likely to be active members of clubs or associations than the same subgroups in the broader Australian population.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

One or both proportions in this comparison have a margin of error greater than 10% and should be used with caution.

Missing values in this chart indicate that the rate has been suppressed due to small numbers.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

Why did we measure active membership to clubs and associations among veterans?

Being an active member in a club or association involves meeting with others who have a common purpose or interest and taking part in shared activities. In 2020, 46% of Australians were involved in social groups, 21% were involved in community groups, and 7% were involved in civic and political groups (ABS 2021).

Belonging to a club or association provides opportunities for people to develop friendships, interact with others from diverse backgrounds, and develop a strong sense of belonging and purpose. Finding an enjoyable pastime through sport, hobbies or community groups can reduce the risk of chronic physical and mental health conditions and stress, whilst enhancing self-confidence, self-esteem, sense of personal empowerment and social relationships (Department of Health and Aged Care 2022; Head to Health n.d; AIFS 2016).

Transition out of the ADF often requires veterans to re-establish their sense of purpose, social connections, and sense of belonging. Veterans will often engage with ex-service organisations (ESOs) to assist with their transition to civilian life in areas such as advocacy, visitation services, aid with employment and education, and social activities (DVA 2022). More than one quarter (28%) of ADF personnel who recently left the ADF have joined one or more ex-service organisations (Van Hooff et al. 2018) and 2 in 3 (66%) DVA card holders belong to similar organisations (DVA 2008). As such, the increased rates of active membership to clubs and associations observed among veterans in this report may be explained by the cohort's membership to ESOs.

Footnotes

proportion has a high Margin of Error and should be used with caution.

19. This comparison excludes persons who had served in both the regular and reserve service.

[20.] A similar result was found among people who had never served in the ADF (28% of those aged 18 to 44 compared with 38% of those aged 65 years and older).

[21.] A similar result was found among people who had never served in the ADF (21% of those in poor general health compared with 31% of those is good general health).

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Frequency of social contact

22% of all veterans

had infrequent social contact with others. This was similar to those who had never served in the ADF (20%)

Over 1 in 4 younger veterans

(aged 18 to 44; 27%) had infrequent social contact with others. This was higher than those who had never served in the ADF (18%).

Veterans in poor mental health

were nearly twice as likely to have infrequent social contact (#47%) as persons who had never served in the ADF (26%).

How did we measure the frequency of social contact veterans had with other people?

As part of the HILDA self-questionnaire, respondents were asked "In general, about how often do you get together socially with friends or relatives not living with you?". This information is recorded on an ordinal scale from 1 (everyday) to 7 (less often than once every 3 months). Based on responses to this survey question, respondents were disaggregated into three subgroups for analysis:

- **Infrequent social contact with others** is indicated by scores of 6 or 7 (that is, once or twice every 3 months, or less often than once every 3 months).
- **Moderate social contact with others** is indicated by scores of 4 or 5 (that is, 2 or 3 times a month, or about once a month).
- **Frequent social contact with others** is indicated by scores of 1, 2 or 3 (that is, every day, several times a week or about once a week).

On this page, only the proportions of people who had infrequent social contact with others (that is, responses with scores of 6 or 7 for this survey question) are reported.

Comparing to people who have never served in the ADF

Overall, analysis of self-reported data from Wave 21 of HILDA indicated that people who had ever served in the ADF (herein referred to as 'veterans') had infrequent social contact with others at a similar rate to people who had never served in the ADF (22% compared with 20%, respectively).

However, some subgroups of veterans were at greater risk of infrequent social contact than people who had never served in the ADF from the same subgroups. This includes veterans who were:

- **aged 18 to 44** (27%, compared with 18% of people who had never served in the ADF)
- **in poor mental health** (#47%, compared with 26% people who had never served in the ADF)
- **in high to very high psychological distress** (#45%, compared with 26% of people who had never served in the ADF).

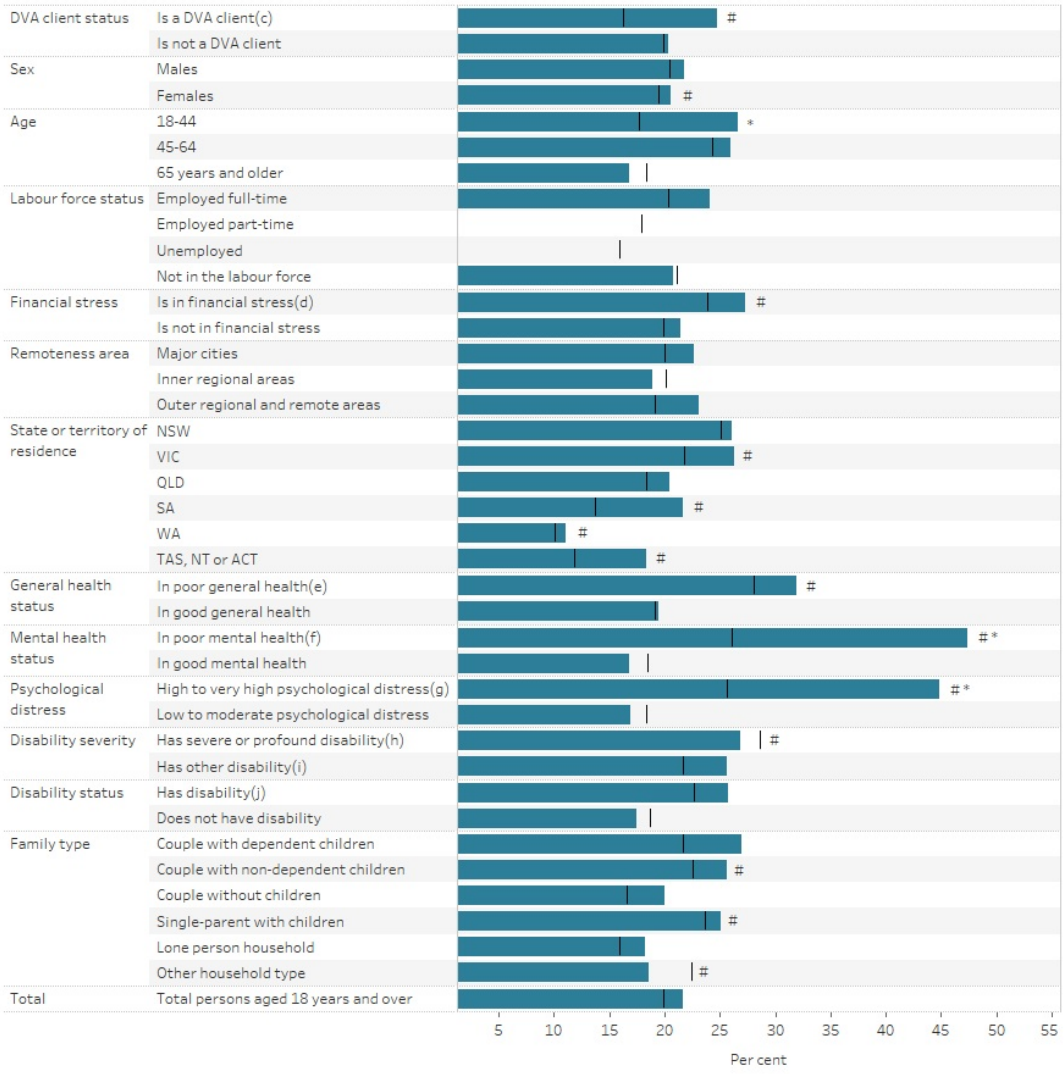
Comparing between subgroups of veterans

Some subgroups of veterans were also at higher risk of having infrequent social contact than others. This included veterans who were:

- **in poor mental health** (#47%, compared with 17% of veterans in good mental health)[28]
- **in high or very high psychological distress** (#45%, compared with 17% of veterans in low to moderate psychological distress)[29]
- **in poor general health** (#32%, compared with 19% of veterans in good general health)[30]
- **aged 18 to 44**[31] and **aged 45 to 64**[32] (27% and 26% respectively, compared with 17% of veterans aged 65 years and older) (Figure 12).

Figure 12: Rates of infrequent social contact (that is, once or twice every three months or less), by individual characteristics and ADF service status, 2021-22

The bar chart shows that veterans aged 18 to 44, in poor mental health or in high to very high psychological distress were more likely to have infrequent social contact than the same subrgoups in the broader Australian population.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

One or both proportions in this comparison have a margin of error greater than 10% and should be used with caution.

Missing values in this chart indicate that the rate has been suppressed due to small numbers.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

Why did we measure how frequently veterans were in social contact with others?

The frequency of social contact a person has with their family and friends is an objective indicator of social isolation (Holt-Lunstad et al 2015). Prolonged lack of social contact can lead to loneliness, as well as an increased risk of developing physical, mental, and cognitive health issues (Holt-Lunstand 2021). However, it is possible for an individual to have a small social network and experience no loneliness, or have a large social network and still feel lonely (Relationships Australia 2018).

Frequency of social contact was significantly affected by the COVID-19 pandemic, and this likely influences the findings discussed in the report due to the overlap of the pandemic with Wave 21 data collection. According to findings from the 2020 General Social Survey (GSS), over 2 in 5 (42%) Australians had face-to-face contact with family or friends living outside their household at least once a week during the first year of the COVID-19 pandemic (2020), compared with 3 in 5 (68%) in 2019 (ABS 2021). This likely reflects the impacts of COVID-19 restrictions and initiatives such as social distancing rules and limits on gatherings that occurred from March 2020 (ABS 2021).

International research suggests that frequent social contact with others may help reduce suicidal ideation and symptoms of depression and PTSD among veterans (Mavandadi et al 2019, Teo et al 2019), and among female veterans, may improve their ability to cope with deployment-related stressors (Mattocks et al 2012).

Footnotes

proportion has a high Margin of Error and should be used with caution.

[28.] A similar result was found among people who had never served in the ADF, however the size of the difference was smaller (26% of those in poor mental health compared with 18% of those in good mental health).

[29.] A similar result was found among people who had never served in the ADF, however the size of the difference was smaller (26% of those in high or very high psychological distress compared with 18% of those in low or moderate psychological distress).

[30.] A similar result was found among people who had never served in the ADF (28% of those in poor general health compared with 19% of those in good general health).

[31.] This pattern was not seen among people who had never served in the ADF.

[32.] A similar result was found among people who had never served in the ADF (24% of those aged 45 to 64 compared with 18% of those aged 65 years and older).

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Feeling part of a local community

Over 1 in 4 veterans

(27%) did not feel part of their local community. This was similar to those who had never served in the ADF (26%).

Over half of veterans in psychological distress

(51%) did not feel part of their local community. This was higher than those who had never served in the ADF (39%).

Veterans in poor general health

were more likely to not feel part of their local community (39%) than those in good general health (24%). This was similar to people who had never served in the ADF (39% and 24%).

How did we measure whether veterans felt part of their local community?

As part of the HILDA continuing person and new person questionnaires, respondents were asked their level of satisfaction with feeling part of their local community. Responses were captured on a scale 0 (totally dissatisfied) to 10 (totally satisfied).

In this web report, satisfaction scores of 0 to 5 have been described as persons who do not feel part of their local community. Scores of 6 and 7 indicate persons who feel somewhat part of their local community, and scores of 8, 9 and 10 indicate persons who felt part of their local community.

On this page, only the proportions of people who do not feel part of their local community (that is, respondents with scores of 0 to 5 for this survey question) are reported.

Comparing to people who have never served in the ADF

Overall, analysis of self-reported data from Wave 21 of HILDA indicated that people who had ever served in the ADF (herein referred to as 'veterans') did not feel part of their local community at a similar rate to people who had never served in the ADF (27% compared with 26%, respectively).

Veterans living in Victoria were at lower risk of not feeling part of their local community than people who had never served in the ADF (17% compared with 27%, respectively).

Some subgroups of veterans were at heightened risk of not feeling part of their local community than people who had never served in the ADF from the same subgroups. This includes veterans who were:

- **aged 45 to 64** (35%, compared with 25% of people who had never served in the ADF)
- **in high to very high psychological distress** (51%, compared with 39% of people who had never served in the ADF).

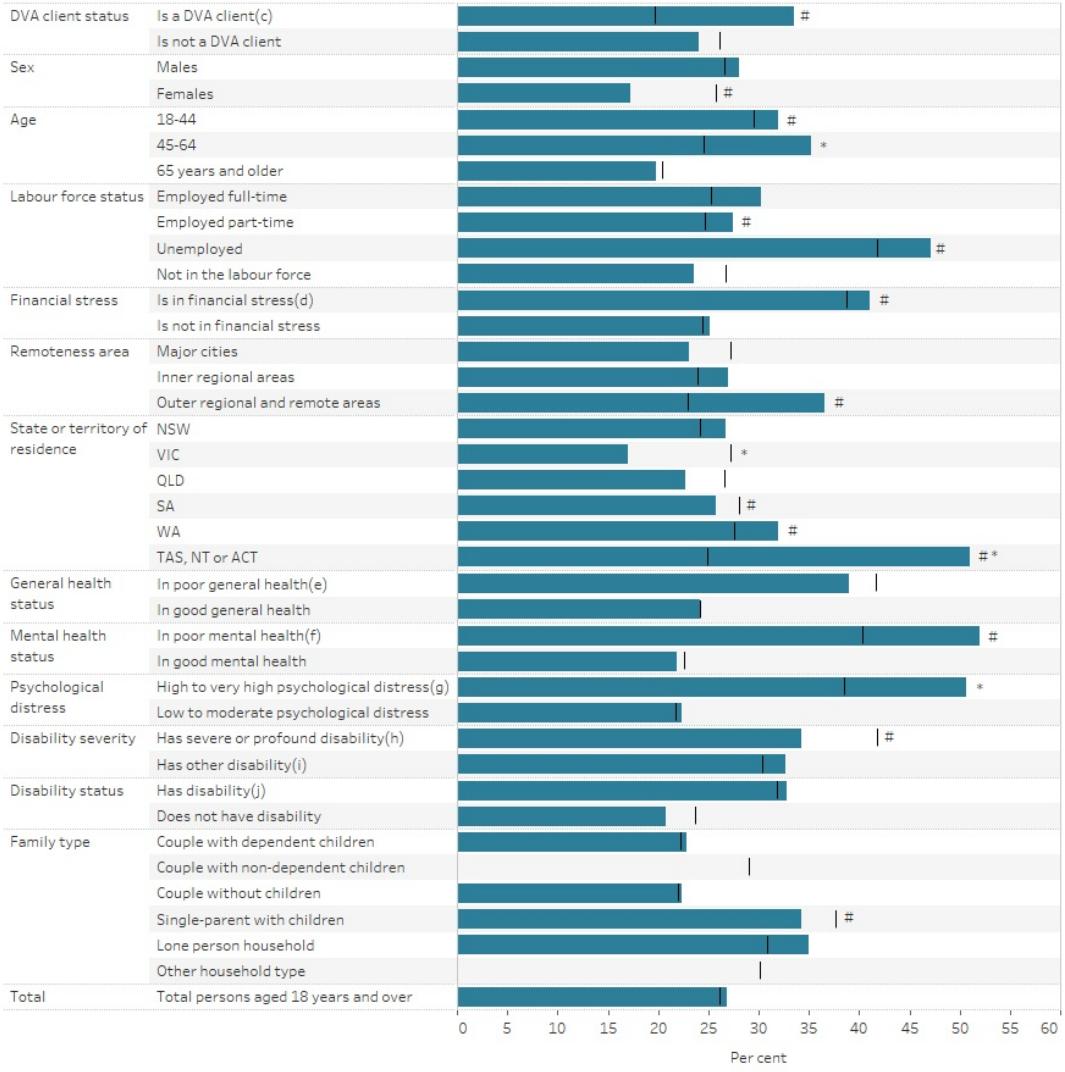
Comparing between subgroups of veterans

Some subgroups of veterans were also at higher risk of not feeling part of their local community than others. This included veterans who were:

- **aged 45 to 64** (35%, compared with 20% of veterans aged 65 years and older)[22]
- **in poor general health** (39%, compared with 24% of veterans in good general health)[23]
- **in high to very high psychological distress** (51%, compared with 22% of veterans who were in low to moderate psychological distress)[24]
- **with disability** (33%, compared with 21% of veterans without disability)[25]
- **living alone** (35%, compared with 22% of veterans living in a couple household without children)[26] (Figure 11).

Figure 11: Rates of not feeling part of their local community, by individual characteristics and ADF service status, 2021–22

The bar chart shows rates of people not feeling part of their local community. Findings show that veterans aged 45 to 64, and veterans in high or very high psychological distress, were more likely to not feel part of their local community than the same subgroups in the broader Australian population.



* A statistically significant difference between veterans and people who had never served in the ADF, calculated using the confidence interval of the difference between the two proportions.

One or both proportions in this comparison have a margin of error greater than 10% and should be used with caution.

Missing values in this chart indicate that the rate has been suppressed due to small numbers.

Source: DSS and The Melbourne Institute 2022. Microdata: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, 2021–22.
https://www.aihw.gov.au/

See notes

Why did we measure whether veterans feel part of their local community?

A sense of community belonging describes the degree to which individuals feel connected to their local community and their place within it. There are several factors that influence community belonging, including physical and mental health, sex, age, income, physical activity, and health risk factors such as smoking, obesity, and alcohol consumption (Michalski et al. 2020). Communities and neighbourhoods that are socially cohesive, promote physical and psychological wellbeing, and that protect the natural environment are considered beneficial to an individual's health and welfare (AIHW 2018). Feeling part of a local community can also be associated with increased perceived social support, and decreased levels of loneliness (McNamara et al. 2021).

Community belonging likely plays an important role in shaping veteran health and wellbeing. International research indicates that just over half (56%) of ex-serving veterans report a somewhat strong or very strong sense of community belonging, which in turn is associated with fewer challenges when transitioning to civilian life (Lee et al. 2023). Other research has found that Reservists who feel a greater sense of belonging to their local community report higher levels of overall wellbeing, partially due to higher perceived social support and enhanced resilience (Pickering and Lam 2020). These established links to wellbeing and social connectedness highlight the importance of exploring the degree to which Australian veterans feel part of their local community, and whether this differs by service or individual characteristics.

Footnotes

[22] A similar result was found among people who had never served in the ADF (25% of those aged 45 to 64 compared with 20% of those aged 65 years and older).

[23] A similar result was found among people who had never served in the ADF (42% of those in poor general health compared with 24% of those in good general health).

[24] A similar result was found among people who had never served in the ADF (39% of those in high to very high psychological distress compared with 22% of those in low to moderate psychological distress).

[25] A similar result was found among people who had never served in the ADF (32% of those with disability compared with 24% of those without disability).

[26] A similar result was found among people who had never served in the ADF (31% of those living alone compared with 22% of those living in a couple household without children).

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Technical notes

About the HILDA Survey

The Household, Income and Labour Dynamics in Australia (HILDA) Survey is a household-based panel study that collects valuable information about economic and personal wellbeing, labour market dynamics and family life. It aims to tell the stories of the same group of Australians over the course of their lives. The HILDA Survey provides policy makers with unique insights about Australia, enabling them to make informed decisions across a range of policy areas, including health, education and social services (Melbourne Institute n.d).

The HILDA Survey is the only study of its kind in Australia, following the lives of more than 17,000 Australians each year. By the nature of its design as a longitudinal study, it can be extended to continue indefinitely, following not only the individuals in the initial sample throughout their lives but also the lives of their descendants (DSS 2022). Data are predominately collected through face-to-face interviews, however telephone and computer-assisted interviews may be conducted to increase response rates if needed (Summerfield et al. 2022).

HILDA data are collected from respondents in annual "Waves". Data have been collected since 2001 (Wave 1), and the most recent published data (Wave 21) were collected between July 2021 and March 2022 (Watson et al 2022). Although designed as a longitudinal study, single-Wave cross-sectional analysis is also possible using the HILDA data. This report conducted cross-sectional analysis of Wave 21 data.

The HILDA Survey is funded by the Australian Government through the Department of Social Services (DSS). The Melbourne Institute is responsible for the design and management of the Survey and has appointed Roy Morgan (research company) to collect data for Waves 9 to 23.

Inclusion of new Australian Defence Force (ADF) service questions in HILDA

Based on the success of the new ADF service questions in 2021 Census field testing, a similar set of questions were introduced to the HILDA Survey in Wave 21. These new HILDA questions inform the population groups analysed throughout this report, with 650 respondents identified as either current or ex-serving veterans in Wave 21.

HILDA respondents were asked the following questions in Wave 21:

Question	Available responses
K78. Have you ever served in the Australian Defence Force? This includes service in the Reserves.	Yes; No; Don't know; Refused
K79. Was that in the Regular Service or in the Reserves Service?	Regular; Reserves; Both; Don't know; Refused
K80. And are you currently serving in the Australian Defence Force, or was that service in the past?	Current; Past; Don't know; Refused

A check for age was applied to question K80, where veterans aged 65 years and older were not asked whether they were current or ex-serving. This survey design aimed to improve the user experience for older veterans completing the survey, as they are unlikely to be current serving due to being older than the standard ADF retirement age of 60 for permanent members, and 65 for Reservists. As such, any person aged 65 years and older who reported that they had ever served in the ADF were automatically recoded as ex-serving in the analysis throughout this report.

Survey analysis methodologies

Weighting methods

Weighting is the process of adjusting results from a sample survey to infer results for the total in-scope population, whether that be persons or households (ABS 2022e). As only a sample of the Australian population was surveyed as part of Wave 21 of HILDA, results in this report were weighted to enable estimates to be made about the social connectedness of the entire population that is in-scope for the HILDA survey.

When conducting analysis of HILDA survey data, the types of weights that should be used will depend on both the type of analysis being conducted, and the source of the survey question that the data have been derived from. This report relied only on cross-sectional (as opposed to longitudinal) analysis, and almost all variables were derived from the Wave 21 HILDA Self-Complete Questionnaire (SCQ). As such, all results in this report have been weighted using the SCQ responding person weights (Summerfield et al. 2022).

The weighted estimates presented in this report are not intended to represent the entire veteran population, and therefore may over-or under-represent certain types of veterans.

For more information on weights within Wave 21 of HILDA, see the HILDA User Manual – Release 21.

How we tested for significant differences between proportions

It is possible that a difference between two sample-based results is due to chance rather than being a true difference. The HILDA survey data presented in this report have been tested for significance at the 5% level using confidence intervals for the difference between two proportions. If the confidence interval of the difference between two proportions contains zero, the difference is statistically significant, but if the confidence interval does not contain zero, it is likely that the difference is not statistically significant (AIHW 2018). Statistically significant differences throughout this report have been indicated using language such as 'lower' and 'higher' where comparisons between groups have been made.

In instances where a significant difference was observed between two subgroups within the veteran cohort, statistical comparisons were conducted against the same subgroup comparison among people who had never served in the ADF, to determine whether the magnitude of the difference was larger or smaller in the veteran cohort. This was achieved by comparing the respective cohort rate ratios, and calculating a z-score. If the z-score was larger than 1.96, the rate ratio for the subgroup comparison in the veteran cohort was deemed significantly different to the rate ratio for the same subgroup comparison among people who had never served in the ADF.

Where comparisons are found to be not statistically significant, there may still be a real difference of practical importance that the statistical test did not detect due to issues such as the small size of the veteran cohort in Wave 21 of HILDA.

General considerations and limitations of findings in this report

COVID-19 related methodological changes to the HILDA survey did not meaningfully reduce the data quality

The fieldwork for Wave 21 of the HILDA Survey was affected by various lockdowns and restrictions due to the COVID-19 pandemic. To maintain the safety of respondents and interviewers, most interviews were conducted via telephone during the lockdown periods, and self-administered forms were conducted online. Although the response rate for Wave 21 was slightly lower than previous years (94% compared with 95% in Wave 20, and 96% in Waves 18 and 19), detailed assessments by the Melbourne Institute determined that the quality of Wave 21 data are similar to previous waves despite the complexities of the fieldwork during the pandemic (Watson et al. 2022).

There is a risk of some current serving ADF members being underrepresented in the HILDA data due to the sampling methodology

The initial HILDA sample developed in Wave 1 excluded people living in non-private dwellings, such as military and police installations. However, current serving ADF members are disproportionately more likely to live in non-private dwellings, with some living in barracks or other similar defence establishments as part of their military service. According to the 2021 Census, around 11% of current serving ADF members lived in non-private dwelling, compared with only 2.1% of ex-serving ADF members and 1.4% of people who had never served in the ADF (ABS 2022a). Most (97%) of the current service members living in non-private dwellings were engaged in the Regular service (ABS 2022a).

Exploratory analysis of Wave 21 HILDA data indicated that only 7% of all veterans in the sample were currently serving in the regular service. This was somewhat lower than the rate observed in the 2021 Census, which found that around 10% of all veterans currently served in the regular service. These factors suggest that the findings in this report may not be representative of ADF members who were currently serving in the regular service and living in a non-private dwelling. As such, findings may be biased towards ex-serving ADF members and current serving members living in private dwellings.

There are small risks of respondent bias due to the HILDA data being self-report

No matter how good a questionnaire or interviewer is, errors can be introduced into a self-report survey either consciously or unconsciously by respondents through issues such as question misinterpretation, sensitivity, or respondent fatigue (ABS 2023a). These issues are known broadly as forms of respondent bias. All analysis in this report made use of self-report data from the HILDA survey, and so the findings may be subject to a degree of respondent bias.

The most noteworthy risk of respondent bias in this report is the potential for respondents to have different interpretations of what constitutes ADF service in the new survey questions added to Wave 21. Specifically, some respondents may consider ADF service limited to overseas deployments, leading to potential underreporting of veterans within the Wave 21 HILDA cohort. Service characteristics such as rank, length of service, the number, length, and frequency of operational deployments and income at time of separation were not captured in Wave 21 of HILDA, making it difficult to validate the scope of what respondents may consider "ADF service". Exploratory analysis of the Wave 21 HILDA data has revealed that 3.7% of the sample reported that they had ever served in the ADF, which was a rate nearly one percentage point higher than observed in the 2021 Census (2.8%; ABS 2022a). This suggests that underreporting of veteran status is unlikely to be an issue in the Wave 21 HILDA data.

Some respondents may also respond inaccurately to survey questions they find embarrassing or do not want to continue answering or adjust their responses to appear more favourable to others. For example, loneliness is typically considered socially undesirable, with men often being less likely to report feeling lonely than women potentially due to stigma or social desirability bias (Lau and Gruen 1992, Lee et al. 2019, Manera et al. 2022). However, the longitudinal nature of the HILDA survey may also mean that compared to other surveys, respondents may be more likely to tell the truth to more sensitive survey questions such as those discussed in this report, irrespective of societal stigma or social desirability. The majority of respondents in this report would have been participating in the HILDA survey for a number of years by the time Wave 21 data were collected, and as such may have become more comfortable with, and less suspicious of, the survey and its administrators (Wooden 2009).

Differences in age profiles likely explain some results in this report

There are several characteristics explored within this report that are inherently more likely to occur in older Australians. With nearly half (49%) of all veterans in Wave 21 of the HILDA data aged 65 years and older compared with only 20% of people who had never served in the ADF, there is a chance that some differences observed between the two groups are better explained by the skewed age distribution of the veteran cohort. This most notably includes findings relating to veterans who are:

- Not in the labour force: Retirement is a common reason why a person may not be in the labour force, with over 3 in 4 (78%) Australians aged 65 years and older retired in the 2018-19 financial year (ABS 2020).
- In a couple with dependent children: Given only between 4.3% to 4.5% of women who gave birth in Australia each year between 2011 and 2021 were aged 40 years and older (AIHW 2023a), it would be uncommon for a person aged 65 years and older to live with dependent children as they are defined in this report.
- Volunteers: previous longitudinal analyses of the HILDA data have revealed that Australians aged 65 years and older have historically had both the highest rate of volunteering, and highest number of hours volunteered, of any age group (Gray et al. 2011; Zhu 2022).

Usually, age standardisation would be employed to correct for the effects of the different age distribution of veterans compared with people who had never served in the ADF. However, the variables analysed in this report did not meet the criteria for age standardisation due to the small size of the veteran cohort. Instead, age-specific rates have been provided where possible and relevant throughout this report.

For more information about the age-specific rates of different individual characteristics explored throughout this report, see A profile of veterans in Wave 21 of HILDA.

The Wave 21 HILDA survey only sampled a small cohort of veterans, limiting the reliability and generalisability of some results

Veterans made up a small portion of the overall Wave 21 HILDA data. This has caused several results in the analysis for this report to have high relative standard errors (RSEs) and margins of error (MoEs), and so the reliability and validity of some findings may be limited. All efforts have been made to select only the highest quality findings for commentary on this report, however instances where proportions have high MoEs have been annotated with a hash (#) to clearly identify that results should be interpreted with caution. In this report, a high MoE is considered an MoE larger than 10%.

Irrespective of high RSEs or MoEs, the small size of the veterans' sample in the HILDA data means that any differences observed between this group and people who had never served in the ADF in this report should be interpreted with caution and may be due to chance.

Some variable values have been aggregated to protect respondent confidentiality and improve data quality

In this report, two variables have had values aggregated due to small cell counts in the underlying unweighted data. These are:

- **Defence workforce type:** Veterans who responded 'Don't know' when asked whether they served in the regular or Reserve service were aggregated with veterans who responded that they served in both services.
- **States and territories:** Results for Tasmania, the Northern Territory, and the Australian Capital Territory have been aggregated together.

There may be covariance between some independent variables analysed in this report, limiting the generalisability of results

The scope of this report is limited to simple univariate analysis, and as such does not include multivariate modelling such as factorial ANOVAs or logistic regression. This means that the findings outlined throughout this report do not control for the potential covariance of interrelated risk and protective factors being measured. For example, limited exploratory testing of Wave 21 HILDA data has revealed potential positive correlations between general health status, mental health status, psychological distress status, and disability status. Potential positive correlations were also observed between unemployment and financial stress. This suggests that there may be interaction effects influencing key findings in this report that are not captured as part of the analysis. This potential for covariance between independent variables is an important limitation to consider, as the real-world relationships between these risk or protective factors and social connectedness are likely more complex than is presented throughout this report. Future work could be undertaken to explore multivariate statistical modelling techniques, however these are outside the scope of this report.

More information on risk and protective factors explored in this report

Overall, 15 different subgroups of veterans were investigated within the analysis for this report, to identify potential risk and protective factors against issues with social connectedness in this population. Details about each subgroup are provided below, including why each was selected for analysis.

Defence workforce type

Defence workforce type refers to whether a veteran served in the regular service, Reserves, or both. It was selected for analysis to identify whether serving in the reserves helps or hinders social connectedness.

Reservists are ADF members who have held service categories 2 through 5 in the ADF Total Workforce System (Defence n.d.). Their roles and level of involvement with the ADF are broad, ranging from minimal participation and only eligibility for call out, to an enduring, regular part-time tenure with the ADF. The flexibility and part-time nature of working in the Reserves services enables members to work in employment outside of the ADF, with 65% employed full-time and 19% employed part-time in 2021 (ABS 2022a). Maintaining a connection to civilian life during service by means such as employment outside of the ADF may facilitate a more positive transition out of the military, and so Reservists may be better protected from issues with social connectedness due to the retained connection they have to the civilian world (Flack and Kite 2021).

However, Reservists may also experience their own unique struggles with social connectedness that could place them at increased risk. For example, international research suggests that deployed Reservists are at greater risk of psychiatric injury than those in the regular service, with PTSD and other mental health conditions in turn associated with increased risk of isolation and loneliness (Crompvoets 2013; Soloman et al. 2014). Some Reservists also struggle to integrate with their regular serving peers due to differences in training and experience, and hostility and stereotyping by permanent members, which may increase feelings of loneliness and isolation during deployment (Crompvoets 2013). Some Reservists can also feel poorly understood by their workplace and have their work contributions over or undervalued because of their service, creating difficulties reconnecting with colleagues following a period of military service (Lander et al. 2019). Overall, each of these factors may serve to increase reservist's risks of isolation or loneliness on their return to civilian life.

Whether current or ex-serving

The risk and protective factors for social connectedness that a veteran is exposed to can differ substantially based on whether they are currently serving in the ADF or have transitioned to civilian life.

For example, veterans may often be well-protected from social isolation and loneliness while serving due to the strong sense of camaraderie, trust and mateship during deployment (Reijen and Duel, 2019). Although some ex-serving veterans retain this protection through other means such as financial stability or staying connected with their peers, others may experience unemployment, financial stress, disability and mental health conditions following separation, potentially placing them at greater risk of issues with social connectedness (Kuwert et al. 2013; Na et al. 2022; Reijen and Duel 2019). Given the established link between isolation and loneliness with poor mental health outcomes and suicidality among veterans (McGuire et al. 2023; Teo et al. 2018), it is vital to understand how social connectedness differs between current and ex-serving ADF members.

Unfortunately, current serving ADF members form a small portion (11%) of the total sample of veterans in Wave 21 of the HILDA survey, significantly reducing the quality of any findings related to this cohort. As such, commentary comparing social connectedness between current and ex-serving members has not been provided in this report.

Given the importance of this data, results have been retained in the Supplementary tables accompanying this report. However, any findings relating to current serving members should be interpreted with caution, and in some measures of social connectedness, may be too unreliable for general use.

Sex

The relationship between a person's sex and their social connectedness is complex, with findings mixed in the broader literature. Previous analysis of HILDA data has found that men are typically more likely to report feeling lonely than women (AIHW 2021; Flood 2005; Relationships Australia 2018). In contrast however, literature using other data sources have reported higher rates of loneliness in women, while others again have found that levels of loneliness are similar between men and women across the lifespan (Lee et al. 2019; Maes et al. 2019).

These inconsistencies may reflect the degree to which different genders are willing to admit to feeling lonely across these studies. It is well-established that men in western countries face greater social stigma around feelings of isolation and loneliness than women due to societal expectations and masculine stereotypes of stoicism and self-reliance, in turn making men more reluctant to outwardly admit to, or seek help for, loneliness (Barreto et al. 2021; Willis and Vickery 2022). These inconsistent findings may also reflect different study methodologies, or that men and women may define loneliness in different ways (Lee et al. 2019).

In the 2021 Census, 87% of ex-serving ADF members were male, compared with around 49% of the overall Australian population (ABS 2022a; ABS 2022d). Given that previous HILDA studies have found that men are more likely to be lonely than women, this strong male skew in the veteran population is likely to influence the findings for isolation and loneliness throughout this report. Findings for veterans throughout this report should be considered in the context of the differing experiences of loneliness between men and women in Australia.

Age

Studies investigating the relationship between age and loneliness often have contradictory findings, likely related to differences in study methods and sample variations. Some studies find higher levels of loneliness among older people while others find lower levels in these age groups (Relationships Australia 2011; Relationships Australia 2018). The relationship between age and loneliness may also vary according to relationship status, with another study finding that Australians aged over 65 who are married experience the lowest levels of loneliness (Australian Psychological Society 2018). Previous research using the HILDA survey has found that among men, loneliness increased towards middle age before decreasing again after retirement age (Baker, 2012).

In 2020–21, 47% of males who served in the ADF were 65 years and older, compared with only 18% of males who had never served in the ADF (AIHW 2023b). This strong skew of older adults in the veteran population may influence Wave 21 HILDA findings discussed in this report.

DVA client status

In this report, a DVA client is defined as a person who has been issued a White, Gold or Orange card by the Department of Veterans' Affairs. Many Australians with one of these DVA cards are veterans, however some spouses or dependants of veterans are also eligible to receive Gold Cards.

To help alleviate issues with social isolation and loneliness during and after their transition to civilian life, DVA offers services such as Coordinated Veterans' Care (CVC) Social Assistance (as part of the CVC Program) which provides eligible and at-risk clients with chronic health condition/s or DVA-accepted mental health condition/s limited short-term assistance with community and social connections (DVA 2020). DVA's rehabilitation program also assist eligible veterans to make social and community connections and engage in activities in their local community (DVA 2022).

Given the above, DVA client status has been included as a variable of interest in this report as it provides an opportunity to identify potential areas of success or development in this domain of social connection-based service delivery.

Labour force status

Labour force status is one indicator of the socio-economic status of an individual. It is influenced by their choices and life circumstances, as well as by broader conditions of the labour market.

The benefits of social connectedness to a person's health and wellbeing are well-established in the workplace context. Employment provides a place for socialisation, and having friends at work can make a person's job more enjoyable, provide them with social support, and improve their job satisfaction and performance (Brown and Leite 2022). Conversely, long-term unemployment may increase broader social isolation from friends and family among men in particular, potentially due to associated feelings of inferiority or shame, and more limited financial resources (Eckhard 2022).

ADF service provides secure and stable employment, and after separating from the ADF, many ex-serving ADF members aim to transition into the civilian workforce (Van Hoof et al. 2018). In 2016, over three quarters of ex-serving ADF males and females (78% and 76%, respectively) were employed, compared with 67% of Australian males and 57% of Australian females (AIHW 2022d). For some ex-serving ADF members however, securing and maintaining employment may be challenging due to issues such as poor physical or mental health. As such, labour force status is important to explore in the context of its effects on social connectedness among the Australian veteran community.

Financial stress

Financial stress is defined as having difficulty meeting basic financial commitments due to a shortage of money or debt; it can have severe short- and long-term consequences for individuals, and negatively impact an individual's health and psychological wellbeing (Department of Education n.d.).

The link between financial stress, social isolation, loneliness and poor mental health outcomes is well established in the literature. Withdrawal from community and social interactions is common during times of financial hardship, due to being unable to afford to participate as well as associated feelings of shame or guilt as a result (AIHW 2021; Gladstone et al. 2021; Tough et al. 2021; Tough et al. 2022). Inversely, the existence and quality of close interpersonal relationships, social support and community connection may also help to protect against adverse health and wellbeing outcomes during times of financial hardship (Singh et al. 2021).

Recent Australian findings from the Transition and Wellbeing Research Programme (TWRP) Family Wellbeing Study revealed that nearly 1 in 4 (24%) ex-serving ADF member families had experienced two or more financial hardship indicators. Specifically, ex-serving ADF members were more likely to report being unable to pay the mortgage or rent on time (8.8%); needing to pawn or sell something (13%); asking for financial help from friends or family (21%); and seeking help from community organisations (8.0%) (compared with 4.8%, 8.0%, 13% and 4.7% among current-serving ADF members, respectively) (Daraganova et al., Smart and Romaniuk 2018). Because of the large cohort of ex-serving ADF members captured within Wave 21 of HILDA, financial stress was assessed as an important variable to explore in the context of social connectedness as part of the analysis of this report.

Remoteness area

Remoteness area is a geographical classification determined according to population and distance to services. Around 7 million people – or 28% of the Australian population – live in rural and remote areas, which encompass many diverse locations and communities (ABS 2023b). These Australians face unique challenges due to their geographic location and often have poorer health outcomes than people living in

metropolitan areas. Recent Australian research has revealed that people living in rural and remote areas have higher rates of hospitalisations, deaths and injury, and also have poorer access to, and use of, primary health care services, when compared with people living in *Major cities* (AIHW 2022b).

Experiences of social isolation and loneliness can also differ depending on how remote a person lives within Australia. For example, people living in rural areas can experience higher levels of community connectedness, participation, and social cohesion than those in urban areas. Compared to people living in metropolitan areas however, rural communities often also experience decreasing populations, loss of health and social support services and limited public transport. The dispersion of families, geographic isolation, and less cohesive communities may all increase the risks of social isolation and loneliness among rural residents (Tittman et al. 2016; Williams et al. 2022).

According to the 2021 Census, 45% of ex-serving ADF members lived in a regional area (ABS 2022a). As such, remoteness area is an important factor to consider when examining social connectedness amongst veterans.

State or territory of residence

The state or territory of Australia that a HILDA respondent lives in is an important variable for consideration in this report for several reasons. Most notably, data collection for Wave 21 of HILDA was conducted between July 2021 and March 2022, which was at the height of the third wave of the COVID-19 pandemic in Australia. By the time data collection for this wave had ended, there had been over 6 million cases and over 7,000 COVID-related deaths, as well as several border closures and stay-at-home orders (herein referred to as “lockdowns”) implemented by Government to prevent the spread of the disease (AIHW 2022c). However, the effects of COVID over this period varied widely between Australian states and territories, with people living in Victoria – particularly metropolitan Melbourne – disproportionately affected over 2021.

Recent research has revealed that rates of loneliness, isolation and psychological distress were significantly higher amongst Victorians in prolonged lockdown compared with other Australians (Griffiths et al. 2022). Given that only 19% of ex-serving ADF members lived in Victoria compared with 26% of Australians who had never served in the ADF during 2021 (ABS 2022a;ABS 2022b), it was considered important to include state and territory-specific analysis in this report to account for the above influence of COVID-19 on the health and wellbeing of Australians over the data collection period.

General health

The HILDA survey measures general health using the Short Form (36) Health Survey (SF-36). The SF-36 is a questionnaire that measures a variety of health-related quality of life domains and is widely regarded as one of the most valid instruments of its type (Wilkins et al. 2022). In this report, the SF-36 scale for general health has been used to identify veterans who may be in poor overall health, which is formed using self-reported responses to questions about a person’s perceived health status (Ware et al. 1993).

The relationship between social connectedness and health is complex and can often be bi-directional in nature. For example, social isolation and loneliness can be significant risk factors for health conditions such as dementia, cardiovascular disease, stroke, and chronic conditions including high cholesterol and diabetes. Conversely, many of these health conditions can also create issues with social isolation and loneliness by limiting a person’s ability to maintain regular and meaningful relationships with others due to issues with accessibility or stigma (National Academies of Sciences, Engineering, and Medicine 2020). The scope of this report is limited to exploring social connectedness in line with the latter, with general health being assessed as a risk factor for isolation and loneliness rather than as an outcome.

Based on self-reported data from the 2020–21 National Health Survey (NHS), male veterans had higher rates of several chronic health conditions, including arthritis, back problems, heart, stroke and vascular disease, diabetes, cancer, and chronic obstructive pulmonary disease, compared with males who had never served in the ADF (AIHW 2023b). As such, general health status was selected as a key risk factor for analysis in this report given the well-established link between poor health, social isolation and loneliness outlined above.

Mental health

The HILDA survey measures mental health using the SF-36. This is a 36-item questionnaire that measures a variety of health-related quality of life domains, and is widely regarded as one of the most valid instruments of its type (Wilkins et al. 2022). In this report, the SF-36 scale for mental health has been used to identify veterans who may be in poor mental health, which is formed using self-reported responses to questions about the degree to which a person feels nervous, calm or happy (Ware et al. 1993).

The relationship between social connectedness and mental health is complex, and similarly to general health, is often bi-directional in nature. For instance, mental health issues may lead to greater feelings of loneliness due to poor social functioning, low mood or energy, fatigue, or finding socialising in public spaces too overwhelming. Conversely, loneliness and social isolation can also lead to a decline in mental health, as individuals may have more time to ruminate on negative thoughts, and in the absence of other people to confide in, may become even more overwhelmed, isolated, and withdrawn (DCMS 2022). The scope of this report is limited to exploring social connectedness in line with the latter, with mental health being assessed as a risk factor for isolation and loneliness rather than as an outcome.

Based on self-reported data from the 2020–21 NHS, veterans were around twice as likely to report having an anxiety-related disorder than people who had never served in the ADF (AIHW 2023b). As such, mental health status was selected as a key risk factor for analysis in this report given the well-established link between poor mental health, social isolation and loneliness outlined above.

Psychological distress

Psychological distress

Psychological distress can be described as unpleasant feelings or emotions that affect a person's level of functioning and interfere with the activities of daily living. Psychological distress can result in having negative views of the environment, others and oneself, and manifest as symptoms of mental illness, including anxiety and depression (AIHW 2023c). Among other things, persons exposed to traumatic events may experience prolonged psychological distress if they are exposed to reminders of the trauma within their environment (Bryant 2019; Littleton et al. 2007; Norbury et al. 2022).

In the HILDA survey, psychological distress is measured using the Kessler Psychological Distress Scale (K10). This is a 10-item questionnaire about negative emotional states experienced in the past 30 days. In this report, high levels of psychological distress are indicated by a K10 score between 22 and 50.

Previous research suggests that the relationship between social connectedness and psychological distress is bi-directional in nature. Loneliness and social isolation can have a significant impact on levels of psychological distress, with recent research finding that loneliness significantly contributed to increased levels of psychological distress among Australians during the COVID-19 pandemic (Biddle et al. 2020; AIHW 2021). Conversely, high levels of psychological distress can negatively impact a person's social functioning, potentially further perpetuating feelings of loneliness (Matud and Garcia 2019). The scope of this report is limited to assessing psychological distress as a risk factor for isolation and loneliness rather than as an outcome.

Service in the military can carry a higher risk of psychological distress above and beyond other occupations. In 2015, levels of high to very high psychological distress amongst ex-serving ADF members were almost three times higher than observed in the broader Australian community (33% compared with 13%) (Van Hooff Et al. 2018). As such, psychological distress was selected as a key risk factor for analysis in this report.

Disability status

Disability is diverse, encompassing people with varying types and levels of impairment across all socioeconomic and demographic groups in Australia. Social connectedness enables the inclusion of people with disability to participate in many aspects of life. However, people with disability can also face various barriers to building strong social connections and participating in society, including those related to discrimination. This can lead to greater risk of isolation and loneliness than experienced by those without disability. In 2017, Australians with disability aged 15–64 were twice as likely (17%) to experience social isolation as those without disability (8.7%) (AIHW 2022a).

Service in the military can carry inherent risks of injury during training and deployment above and beyond that of other occupations. In 2021, male veterans were around twice as likely to have disability with a limitation or restriction as males who had never served (37% compared with 17%, respectively) (AIHW 2023b). Veterans are also more likely to experience disabilities that may put them at a disadvantage in terms of social engagement, such as deafness or hearing disability and having activity limitations (Wells 2018). Because of this increased risk among veterans, disability status was selected as a key variable of interest for analysis in this report.

Disability severity

Disability severity refers to the amount of assistance or supervision a person needs with self-care, mobility, or communication (referred to as 'core activities') because of their disability. In this report, people who always or sometimes need help or supervision with at least one core activity because of their disability are referred to as people with 'severe or profound disability'.

In 2017, people with severe or profound disability were less likely to be active members of a club or association, and less likely to be satisfied with their community, than people with other disability types and people without disability. People with severe or profound disability were also more likely to be isolated and lonely (AIHW 2022a).

Service in the military can carry inherent risks of severe injury during training and deployment, such as traumatic brain injuries, amputations and noise-induced hearing loss from blast events in conflicts (Bennett et al. 2015; Wallace 2012; Yankaskas 2013).

Similarly, to the broader population, rates of social isolation and loneliness among veterans can differ depending on the disability severity, with previous research finding that loneliness increased among veterans who had a severe injury or disability such as an amputation (Asadollahi 2023). Because of the risks of serious injury associated with military service and its connection with isolation and loneliness in the broader literature, disability severity has been selected as a key characteristic for analysis in this report.

Family type

In this report, family type refers to the structure of a family living in a household together, and whether other related or unrelated individuals are present.

The composition of a family can play a significant role in the social connectedness of an individual, as it provides important insights on the informal social support provided by family, and those they live with (AIHW 2022d). For example, living alone and not being in a relationship with a partner are substantial risk factors for both social isolation and loneliness (Flood 2005; Lauder et al. 2004; Relationships Australia 2011; AIHW 2021).

Compared to other household compositions and relationship status', single parents experienced the highest rate of social isolation. Among single parents, males experienced almost twice the rate of social isolation as females (38% and 18% respectively). In addition to single parents, single adults without children also reported high rates of social isolation (15% males and 13% females), as well as couples with

children and couples without children (7% for both males and females) (AIHW 2021).

AIHW analysis of the 2016 Census indicated that ex-serving ADF members lived alone or were single parents at rates similar to the broader Australian population (AIHW 2022d). However, research suggests that veterans with dependent children may be at disproportionately higher risk of increased PTSD rates and symptom severity following combat trauma exposure (Janke-Stedronsky et al. 2015), with veteran single parents at particularly heightened risk (Creech and Misca 2017). Given the well-established relationship between PTSD, social isolation and loneliness among veterans (Wilson et al. 2018), the composition of veteran families was selected as an important variable to explore in the context of social connectedness in this report.

Acronyms

ABS	Australian Bureau of Statistics
ADF	Australian Defence Force
AIHW	Australian Institute of Health and Welfare
CVC	DVA Coordinated Veterans' Care
DVA	Department of Veterans' Affairs
DSS	Department of Social Services
GSS	General Social Survey
HILDA	Household Income and Labour Dynamics in Australia
ISS	Index of Social Isolation
K10	Kessler Psychological Distress Scale
NHS	National Health Survey
SF-36	36-Item Short Form Health Survey

Glossary

age-standardisation: A way to remove the influence of age when comparing populations with different age structures. This is usually necessary because the rates of many events (for example, deaths or service use) vary with age. The age structures of the different populations are converted to the same 'standard' structure, and then the disease rates that would have occurred with that structure are calculated and compared.

confidence interval: A range determined by variability in data, within which there is a specified (usually 95%) chance that the true value of a calculated parameter lies.

COVID-19: A disease of the respiratory system, particularly in the early stages of the illness, caused by the coronavirus SARS-CoV-2.

disability: The HILDA Survey defines disability as an impairment, long-term health condition or disability that restricts everyday activities and has lasted, or is likely to last, for a period of 6 months or more. In this report, people who always or sometimes need help or supervision with at least one core activity because of their disability are referred to as people with 'severe or profound disability'. Core activities include self-care, mobility and communication. People who have disability but do not always or sometimes need help or supervision with at least one core activity are referred to as people with 'other disability'.

DVA Client: A DVA client is defined as someone who responded "yes" in the HILDA survey when asked whether they had been issued a White, Gold or Orange card by DVA.

family type: The composition of households and the relationships between household members. In this report, the following family types are explored:

- **Couple family without children:** Respondent is part of a married or de facto couple without children in the household. The household may include any number of other related or non-related individuals usually resident in the household.
- **Couple with dependent children:** Respondent is part of a married or de facto couple with at least one child under 15 or dependent student in the household. The household may include any number of other related or non-related individuals usually resident in the household.
- **Couple with non-dependent children:** Respondent is part of a married or de facto couple with at least one child in the household who is not dependent. They do not have any children in the household who are under 15 or dependent students. The household may include any number of other related or non-related individuals usually resident in the household.
- **Lone parent with children:** A person who has no spouse or partner present in the household but who forms a parent-child relationship with at least one child, either dependent or non-dependent, usually resident in the household. The household may include any number of other related or non-related individuals usually resident in the household.
- **Lone person household:** A person at least 15 years of age who lives in a dwelling on their own.

- **Other household:** includes those who live in a multiple family household in which there are two or more of the family types living in the same dwelling, and group households which consists of two or more unrelated people.

financial stress: refers to the difficulties that people have meeting basic financial commitments due to a shortage of money. In the self-completion section of the HILDA survey, respondents were asked if they experienced the following financial stress indicators during the calendar year:

- Could not pay electricity, gas or telephone bills on time.
- Could not pay the mortgage or rent on time.
- Pawned or sold something.
- Went without meals.
- Was unable to heat home.
- Asked for financial help from friends or family.
- Asked for help from welfare/ community organisations.

For this report, respondents must have experience two or more the indicators to be classified as being in financial stress.

labour force status: refers to a person being either in the labour force (employed or unemployed) or not in the labour force. An individual's labour force status is influenced by their choices and life circumstances as well as by broader conditions of the labour market. In this report, the following categories of labour force status were explored:

- **employed full-time:** respondent had a job, business or farm leading up to the interview, and whose usual weekly hours of work in all jobs totalled 35 or more. This includes people who had either worked in the last 4 weeks, or had not worked but: had been in paid work for any part of the last 4 weeks; or had been on worker's compensation and expected to return to work for the same employer; or had not worked because of a strike or lock-out.
- **employed part-time:** respondent had a job, business or farm leading up to the interview, and whose usual weekly hours of work in all jobs totalled less than 35. This includes people who had either worked in the last 4 weeks, or had not worked but: had been in paid work for any part of the last 4 weeks; or had been on worker's compensation and expected to return to work for the same employer; or had not worked because of a strike or lock-out.
- **unemployed:** respondent had actively looked for work at any time in the 4 weeks before the interview and was available to start work in the week before the interview; or respondent was waiting to start a new job within 4 weeks from the date of the interview and could have started in the week before the interview if the job had been available.
- **not in the labour force: respondents** who were non-employed and not unemployed. This may include people marginally attached to the labour force (those who wanted to work and were either available to start work but were not currently looking, or were looking for work but were not currently available) as well as other people (those who did not want to work; or wanted to work but were not actively looking for work and were not available to start work within 4 weeks). Examples of persons not in the labour force include people who are retired or voluntarily economically inactive, and people who experiencing a short- or long-term health condition or disability (ABS 2022f: Wilkins et al 2022).

psychological distress: Unpleasant feelings or emotions that affect a person's level of functioning and interfere with the activities of daily living. This distress can result in having negative views of the environment, others and oneself, and manifest as symptoms of mental illness including anxiety and depression.

rate: One number (the numerator) divided by another number (the denominator). The numerator is commonly the number of events in a specified time. The denominator is the population "at risk" of the event. Rates (crude rates, age-specific rates and age-standardised – see age-standardisation) are generally multiplied by a number such as 100,000 to create whole numbers.

remoteness area: This report uses the *Australian Statistical Geography Standard Remoteness Structure, 2001* which defines remoteness areas in 5 classes of relative remoteness:

- *Major cities*
- *Inner regional*
- *Outer regional*
- *Remote*
- *Very remote*.

Due to small population sizes, data for "*Outer regional*", "*Remote*" and "*Very remote*" are combined into "*Outer regional and remote*" for reporting.

SF-36 measures of health: The SF-36 Health Survey is a 36-item questionnaire that is intended to measure health outcomes (functioning and wellbeing) from a patient point of view. The SF-36 measures of general health and mental health were used for this report. In this report, persons in poor general or mental health were classified as:

- **Poor general health:** an SF-36 score less than or equal to 37.
- **Poor mental health:** an SF-36 score less than or equal to 52.

statistical significance: A statistical measure indicating how likely the observed difference was due to chance alone.

weighting: Adjustment of the characteristics of one group so they are statistically similar to the characteristics of another group so that comparisons of the effect under study can be more certain.

What support is available?

For support and counselling contact:

- Open Arms - Veterans and Families Counselling 1800 011 046
- Defence All-hours Support Line (ASL) 1800 628 036
- Defence Member and Family Helpline 1800 624 608
- Defence Chaplaincy Support 1300 333 362
- Lifeline 13 11 14
- Beyond Blue Support Service 1300 224 636

For more information on loneliness and social isolation, see:

- Ending Loneliness Together

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Data

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