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## Brief Report

Comparison of DVA clients', ADF members' and the general population's responses to the 2007 National Survey of Mental Health and Wellbeing



## **Authors**

Professor Annette Dobson, AM, Centre for Military and Veterans' Health. The University of Queensland

Dr Louise Mewton, Clinical Research Unit for Anxiety and Depression, University of New South Wales at St Vincent's Hospital

Dr Annabel McGuire, Centre for Military and Veterans' Health, The University of Queensland

Dr Tracey Varker, Australian Centre for Posttraumatic Mental Health, University of Melbourne

Professor David Forbes, Australian Centre for Posttraumatic Mental Health, University of Melbourne

Associate Professor Darryl Wade, Australian Centre for Posttraumatic Mental Health, University of Melbourne

Enquiries should be directed to:

Professor Annette Dobson

Centre for Military and Veterans' Health

The University of Queensland

Mayne Medical School

Herston Road

HERSTON QLD 4006

Phone: 07 3346 4873

Fax: 07 3346 4878

[a.dobson@sph.uq.edu.au](mailto:a.dobson@sph.uq.edu.au)

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## **Summary**

The aim of this research was to compare the prevalence of affective, anxiety and substance use disorders, and the use of mental health services, between respondents identifying with the Australian Defence Force (ADF) or the Department of Veterans' Affairs (DVA) and the general population.

The 2007 National Survey of Mental Health and Wellbeing (NSMHW 2007) obtained data from a nationally representative household survey of 8,841 respondents aged between 16 and 85. It included questions asking whether the respondent had 'ever served in the military' or 'ever received a DVA benefit'. Service included "overseas qualifying service and serving and ex-serving members of the Australian Defence Force" and excluded members of the Army Reserve. Benefits included payments to veterans, their dependants or war widows; and one-off payments for a service related injury or ongoing payments and rehabilitation (ABS, 2009). Outcomes were reported separately for men and women

### **Outcomes for men**

Less than 20 per cent of men who had served or were serving in the ADF reported receiving benefits from DVA. Men who had served in the ADF, including those who received a benefit from DVA, were significantly older and more likely to report poorer health than men in the general population. When controlling for age, marital status, employment status, and self-assessed physical health they were 50 per cent more likely to be diagnosed with any lifetime mental disorder including any affective disorder, depression, PTSD, and alcohol use disorder compared with males not associated with the ADF or DVA. They were also more likely to report medium or severe psychological distress. These findings are consistent with the 2010 ADF Mental Health Prevalence Study.

### **Outcomes for women**

Almost 90 per cent of the women who received DVA benefits had not served in the ADF, which suggests that they were the carers or widows of servicemen. Women who received DVA benefits were significantly more likely to be older than women not associated with the ADF or DVA. They too were more likely to report moderate or severe psychological distress, less satisfaction with their lives and significant disability. However, the comparatively small numbers of women receiving benefits from DVA mean that these results should be interpreted cautiously.

## **Mental health service use**

Approximately 40 per cent of ADF men and 66 per cent of women receiving benefits from DVA reported the use of mental health services, which was not significantly different compared to the general population.

## **Discussion**

While older men who have served in the ADF had poorer mental health than those in the general community, most did not report receiving DVA benefits. Some may not have been eligible for support from DVA, others may have been eligible but did not receive benefits, or the mental health conditions of some may not have been related to their service. For women it was not possible to assess if any were eligible for support but did not receive it.

Recent policy changes, as reported in the DVA 2011-2012 Annual Report, clearly separate financial benefits from the receipt of services, such as mental health care, or using DVA programs. Potential clients do not have to have an accepted claim or receive a pension in order to receive services. Further dissemination of these policy changes may see more people receiving treatment and potentially reducing the proportion of veterans who are suffering without receiving treatment. However, these changes would be unlikely to be evident from data collected by NSMHW in 2007 or in future surveys without including additional questions in the NSMHW that are specific to this population.

Data from the NSMHW are not adequate to meet DVA needs, currently. The sample is too small to provide sufficient numbers of ADF or DVA responders to produce reliable results. Also, the identifying questions used (have you ever served, have you ever received a benefit) are inadequate to establish a responder's potential eligibility for benefits. This is particularly the case for the partners of veterans who are only identified if they are receiving a benefit from DVA.

Following the Canadian model it may be possible for the Australian Bureau of Statistics to conduct supplemental surveys targeting current serving members of the Defence Force and including additional questions to assess the responder's potential eligibility for later support. This may produce predictive data for DVA. However, developing a sampling scheme for supplemental surveys that target the ex-serving population and their partners who are not currently in receipt of a DVA benefit but may be eligible for support would be difficult as no lists or nominal rolls exist and these people are scattered throughout the general population.

## **Preface**

The aim of this research was to use data from the 2007 National Survey of Mental Health and Wellbeing (NSMHW2) to analyse whether there were any statistically significant differences between the Australian population and those identifying as serving/ex-serving members of the Australian Defence Force (ADF) and/or Department of Veterans' Affairs (DVA) beneficiaries. Based on the analysis it also evaluates the suitability of the NSMHW as a source data to assess current and future needs for Departmental support and services for the veterans and ex-serving community.

This brief report describes differences in mental health outcomes between the Australian population and individuals identifying as serving/ex-serving members of the ADF and/or DVA beneficiaries. Outcomes for men and women are described separately. It also discusses the suitability of the NSMHW for the Department's purposes. This brief report is supported by the technical information contained in the supplementary tables (Appendices A – D). An article has also been prepared for submission to academic peer reviewed journals.

## **Introduction**

The 2007 National Survey of Mental Health and Wellbeing obtained data from a nationally representative household survey of 8,841 respondents aged between 16 and 85. It included questions asking whether the respondent had “ever served in the Australian Defence Forces” or was “receiving or have ever received a benefit from the Department of Veterans' Affairs”. Service included “overseas qualifying service and serving and ex-serving members of the Australian Defence Force” and excluded members of the Army Reserve. Benefits included payments to veterans, their dependants or war widows; and one-off payments for a service related injury or ongoing payments and rehabilitation (ABS, 2009). Most respondents (92%) had no association with either the ADF or DVA. The remaining respondents reported that they had served with the ADF, received a benefit from DVA, or both. In other words, they may have served in the ADF and not be in receipt of a benefit from DVA or that they receive a benefit from DVA and have not served in the military: for instance the widows and widowers of veterans. As the responses to these two questions differed significantly depending upon the gender of the respondent, outcomes for men and women are presented separately.

## Outcomes for male ADF members and DVA clients

Very few men (less than one per cent of all men involved in the research (Cell 1C) reported receiving a benefit from DVA without also reporting that they had served in the military. There are three plausible reasons for this: an error in completing the questionnaire, they were married to a female veteran and received a spouse pension, or they were/had been the dependent child of a deceased veteran. These males were not included in further analyses.

Table 1: Males who reported ADF service and/or receipt of a DVA benefit by age: per cent of total

	A. 18-54 years		B. 55-85 years		C. Total	
	n	(%)	n	(%)	n	(%)
1. Receipt of DVA benefit only	17	(0.4)	19	(0.5)	36	(0.9)
2. ADF service only	118	(2.9)	242	(6.0)	360	(8.9)
3. Both ADF service and receipt of a DVA benefit	16	(0.4)	71	(1.8)	87	(2.2)
4. Neither ADF nor DVA	2419	(60.1)	1125	(27.9)	3544	(88.0)
Total	2570	(63.8)	1457	(36.2)	4027	(100.0)

Table 1 shows the proportions of males in each category. Approximately 80 per cent of men who reported serving in the military did not report receiving a benefit from DVA (See Table 1 ( $80\% = \text{Cell } 2C / (\text{Cell } 2C + \text{Cell } 3C) * 100 = 360 / (360 + 87) * 100$ ). Some respondents may have been serving with the ADF at the time of the survey, although the screening questions do not identify serving members.

Most men who had served in the ADF were aged over 55 (Cell 2B + Cell 3B = 7.8% aged over 55 versus Cell 2A + Cell 3A = 3.3% aged less than 55). Men older than 55 with ADF service could have completed National Service (1951-1972), served in World War II, the Korean War, Malayan emergency, or the Vietnam War. They were less likely to have participated in more recent deployments to the Australia's Near North Areas of Influence (such as Timor-Leste) and the Middle East Area of Operations. Complete demographic details are provided in Appendix A. All subsequent analyses compared ADF men (including those who had received a benefit from DVA (rows 2 and 3) with Australian males (row 4).

Compared with Australian men, ADF men (including DVA clients) were statistically significantly likely to be older, widowed, and report poorer physical health. They were also less likely to be employed and separated/divorced or never married.

The 2007 NSMHW used face-to-face interviews of 8,841 respondents aged between 16 and 85 based on a stratified, multistage probability sample of residents. The interviews collected data on mental health disorders, psychological distress (Kessler 10, K10), self-assessed ratings of mental and physical health and life satisfaction, quality of life (WHODAS 2.0), and the use of mental health services. The statistical analyses of mental health data controlled for variables associated with mental health, namely age, marital status, employment status, and self-assessed physical health. An overview of the methods and main findings has been reported by others (e.g. Slade et al, 2009). Further details of the procedures and measures included in the analysis will be included in the manuscript prepared for submission to academic journals.

Table 2: Comparisons of mental health and functional variables between men who had ever served in the ADF and Australian men

	ADF men <sup>1</sup>		Australian men <sup>2</sup>		Adjusted Odds Ratio (95 % CI)	p
	n	%	n	%		
<b>Lifetime mental health disorder</b>						
Any	219	50.5	1524	44.7	<b>1.54 (1.16-2.05)</b>	<b>0.003</b>
Affective	64	15.4	410	11.6	<b>1.76 (1.12-2.76)</b>	<b>0.01</b>
<i>Depression</i>	61	14.7	393	11.1	<b>1.74 (1.09-2.77)</b>	<b>0.02</b>
<i>Other affective</i>	6	1.2	66	1.9	0.70 (0.25-1.95)	0.50
Anxiety	68	16.7	567	15.9	1.24 (0.86-1.79)	0.25
<i>PTSD</i>	25	5.9	155	4.4	<b>1.76 (1.06-2.95)</b>	<b>0.03</b>
<i>Other anxiety</i>	40	9.3	399	11.0	0.91 (0.51-1.61)	0.74
Substance use	172	37.0	1167	34.4	<b>1.35 (1.01-1.82)</b>	<b>0.05</b>
<i>Alcohol</i>	167	36.2	1082	32.1	<b>1.39 (1.04-1.86)</b>	<b>0.03</b>
<i>Other</i>	23	4.4	343	10.6	0.77 (0.47-1.25)	0.28
Ever attempted suicide	14	2.4	91	2.1	1.60 (0.75-3.38)	0.22
<b>K10</b>						
Low distress <sup>a</sup>	327	71.4	2683	75.6		
Medium/severe distress	120	28.6	860	24.4	<b>1.53 (1.11-2.10)</b>	<b>0.009</b>
<b>Self-assessed mental health</b>						
Excellent/Very good <sup>a</sup>	258	60.5	2397	68.2		
Good/Fair/Poor	189	39.5	1146	31.8	1.15 (0.87-1.53)	0.34
<b>Self-assessed life satisfaction</b>						
Excellent/Very good <sup>a</sup>	209	49.0	1821	53.7		
Good/Fair/Poor	238	51.0	1722	46.3	1.00 (0.76-1.31)	0.99
<b>WHODAS 2.0</b>						
<90 <sup>th</sup> sample percentile <sup>a</sup>	377	86.5	3271	92.7		
>90 <sup>th</sup> sample percentile	70	13.6	273	7.3	1.32 (0.95-1.83)	0.10
<b>Use of mental health services</b>	86	39.7	574	36.5	1.33 (0.86-2.07)	0.21

Note: Percentages are weighted to account for survey design. Frequencies are unweighted and may not add up to total due to missing data

<sup>1</sup>ADF men = men who have ever served in the ADF whether or not they had received a benefit from DVA

<sup>2</sup>Australian men excluding those who had ever served in the ADF and those who had ever received a benefit from DVA.

<sup>a</sup>Reference category

\*Statistically significant results are in bold.

The results in Table 2 show that men who had served in the ADF were more likely to be diagnosed with any lifetime mental disorder compared with Australian men in general (50.5% v 44.7%; adjusted odds ratio (OR) = 1.54 (95% confidence interval: 1.16-2.05)). This difference was statistically significant. ADF men were also statistically significantly more likely to be diagnosed with any affective disorder (15.4% v 11.6%) including depression (14.7% v 11.1%). They were also more likely to be diagnosed with substance use disorders (37.0% v 34.4%), including alcohol use disorder (36.2% v 32.1%), and PTSD (5.9% v 4.4%) than Australian men in general. ADF men were also more likely to report medium/severe psychological distress (28.6% v 24.4%). However, there was no statistically significant difference between ADF and Australian men (39.7% v 36.5%) in the proportion of men who reported ever consulting any health professional for a mental health problem. More details

on the mental health and life satisfaction outcomes for males (both ADF and DVA, ADF only, and DVA only) are available in Appendix B.

### **Discussion of outcomes for ADF men**

Consistent with the ADF 2010 Mental Health Prevalence Report (Hodson et al, 2011) , ADF men had significantly higher lifetime prevalence of mental health disorders than the general Australian male population (after adjustment for age and other socio-demographic characteristics and self-assessed physical health). The majority of ADF/DVA respondents did not receive DVA benefits. However, the increased prevalence of lifetime mental health disorders in this population provides support for new programs initiated by DVA. The DVA Annual Report lists a series of ‘immediate and direct pathways to receive mental health information and support’ (p 144 Department of Veterans’ Affairs Annual Report 2011-2012) that do not require the veteran to make a claim in order to access services such as these. For example the pathways include counselling and mental health treatment through the Veterans and Veterans Families Counselling Service, online support and information through the mental health website At Ease and free treatment for PTSD, depression and anxiety to veterans with operational service.

The questions that were used to identify men with ADF service did not provide any details on the type, duration or timing of their military service completed by the respondent.

Consequently, understanding whether the higher prevalence of mental health disorders is associated with military service, deployment or some other factor cannot be obtained from this data set. For instance, many national servicemen who completed their compulsory service in the 1950’s and 1960’s or those who served in a largely peacetime military between the conclusion of the Vietnam war and the large deployment to East Timor in 1999, may have been included in the ADF group but have not experienced combat or any deployments.

It is not clear whether those with poorer mental health who may benefit from additional support do not receive it from DVA because they do not have appropriate qualifying service, they have not reported a mental health disorder to DVA, their disorder is not related to their service or whether there are other factors influencing the findings.

The DVA Annual Report 2011-2012 also cites the number of surviving veterans by conflict. Nonetheless, the results of these analyses of NSMHW2 suggest that some older men who have served in the ADF and may be eligible for support from DVA do not receive it despite

the fact that their prevalence of mental health disorders is higher than in the general community.

### Outcomes for female DVA clients and ADF members

Overall there were far fewer women (5% = Table 3 rows 1, 2, and 3) compared with men (12% = Table 1 rows 1, 2, and 3) responding to the NSMHW2 who reported that they had served with the ADF, received a benefit from DVA or both, suggesting that the results should be interpreted with caution.

In contrast to the men, 70 per cent of women who reported receiving a benefit from DVA had not served in the ADF (See Table 3: Cell 3C/ (Cell 1C + Cell 2C + Cell 3C)\*100 = 168/ (53+20+168)\*100). While some women may have made an error and not reported their ADF service it would seem that most women in receipt of a DVA benefit were the widows or carers or the orphans of servicemen. Only 53 women reported ADF service only (Row 1 of Table 3) and most of these women were aged less than 55 years. They have been excluded from further analyses.

Table 3: Female Respondents who reported ADF service and/or receipt of a DVA benefit by gender and age: per cent of total.

	A. 18-54 years	B. 55-85 years	C. Total
	n (%)	n (%)	n (%)
1. ADF service only	34 (0.7)	19 (0.4)	53 (1.1)
2. Both ADF service and receipt of a DVA benefit	6 (0.1)	14 (0.3)	20 (0.4)
3. Receipt of DVA benefit only	23 (0.5)	145 (3.0)	168 (3.5)
4. Neither ADF nor DVA	3150 (65.4)	1423 (29.6)	4573 (95.0)
Total	3213 (66.7)	1601 (33.3)	4814 (100)

Most women who received a benefit from DVA were aged 55 years and over (Table 3: 82.6% = Cell 2B+Cell 3B/(Cell 2A+Cell 3A +Cell 2B+Cell 3B)\*100 = 14+145/(6+23+14+145)\*100). All subsequent analyses compared DVA women (including those who had served with the ADF (rows 2 and 3) with Australian women (row 4).

Women who received a benefit from DVA were more likely to be widowed and less likely to have completed a university degree or be employed compared with Australian women in general. Data not shown.

As described in the section on outcomes for men, the statistical analyses of mental health data for women also controlled for variables associated with mental health, namely age, marital status, employment status, and self-assessed physical health.

Table 4: Comparisons of mental health and functional variables females who had ever received a benefit from DVA and Australian females.

	DVA females <sup>3</sup>		Australian females <sup>4</sup>		Adjusted Odds Ratio (95 % CI)	p
	n	%	n	%		
<b>Lifetime mental health disorder</b>						
Any	46	30.8	1742	37.9	1.01 (0.55-1.88)	0.97
Affective	23	16.0	867	18.2	1.07 (0.54-2.12)	0.85
<i>Depression</i>	23	16.0	846	17.9	1.09 (0.55-2.16)	0.81
<i>Other affective</i>	3	0.9	132	2.8	0.34 (0.06-1.82)	0.21
Anxiety	28	14.2	1138	25.0	0.63 (0.32-1.26)	0.19
<i>PTSD</i>	12	5.8	462	9.9	0.66 (0.24-1.79)	0.41
<i>Other anxiety</i>	16	8.5	658	13.9	0.68 (0.26-1.82)	0.45
Substance use	14	10.5	664	4.2	1.60 (0.31-8.22)	0.58
<i>Alcohol</i>	14	10.5	558	11.8	1.87 (0.38-9.19)	0.44
<i>Other</i>	0	0	230	4.8	<i>Not calculable</i>	
Ever attempted suicide	8	10.7	208	4.1	4.17 (0.76-22.79)	0.10
<b>K10</b>						
Low distress <sup>a</sup>	129	62.4	3085	67.4		
Medium/severe distress	59	37.6	1487	32.6	<b>1.79 (1.04-3.09)</b>	<b>0.04</b>
<b>Self-assessed mental health</b>						
Excellent/Very good <sup>a</sup>	98	56.8	3065	68.1		
Good/Fair/Poor	90	43.2	1508	31.9	1.27 (0.81-1.99)	0.31
<b>Self-assessed life satisfaction</b>						
Excellent/Very good <sup>a</sup>	125	70.0	2276	50.1		
Good/Fair/Poor	63	30.0	2297	49.9	<b>1.58 (1.00-2.51)</b>	<b>0.05</b>
<b>WHODAS 2.0</b>						
<90 <sup>th</sup> sample percentile <sup>a</sup>	139	73.3	4074	89.4		
>90 <sup>th</sup> sample percentile	49	26.7	499	10.6	<b>2.10 (1.14-3.85)</b>	<b>0.02</b>
<b>Use of mental health services</b>	26	66.4	626	37.6	1.18 (0.50-2.79)	0.71

Note: Percentages are weighted to account for survey design. Frequencies are unweighted and may not add up to total due to missing data

<sup>3</sup>DVA females = females who had ever have received a benefit from DVA whether or not they had served in the ADF

<sup>4</sup>Australian females excluding those who had ever served in the ADF and those who had ever received a benefit from DVA

Table 4 shows that compared with Australian women, women who received DVA benefits were more likely to report moderate/severe psychological distress (37.6% v 32.6%, adjusted OR =1.79 (1.04-3.09)), less satisfaction with their lives (30.0% v 49.9%), and have a

significant disability (26.7% v 10.6%). There was no evidence of greater use of mental health services by DVA females compared to the general population of Australian women.

### **Discussion of outcomes for DVA women**

Most women who responded to the ADF and DVA questions reported receiving benefits from DVA, presumably related to their husband's or partner's service in the ADF. Based on the age distribution of these respondents the benefits are also likely to relate to their husband's service in World War II, Korean War, Malayan emergency, and Vietnam than more recent conflicts. For women there was no data available on how many may have been entitled to a widow's or carer's pension but were not receiving such support.

While this group of women did not have statistically significantly different prevalence of mental health disorders from the general Australian community, the numbers were so small that the results may be unreliable. They did report higher prevalence of psychological distress and lower life satisfaction (even after adjustment for socio-demographic factors and self-assessed physical health).

### **Discussion of mental health service usage for men and women**

Neither men nor women associated with the ADF or DVA with mental health disorders reported higher use of mental health services than comparable people in the general community, even though DVA support would facilitate access to these services. This finding is consistent with research that women who are eligible for DVA support do not use excess services (Tooth et al 2012).

### **Is the NSMHW suitable for DVA use?**

The analyses of these data highlight a number of limitations of the NSMHW. The NSMHW2 was designed to provide reliable estimates at the national level. While the number of those responding positively to ADF service or receipt of a DVA benefit was sufficiently large to warrant conducting the present analysis, the ABS warned against the influence of sampling errors when evaluating data relevant to smaller groups (Australian Bureau of Statistics 2007, 2008). Additionally, the original sampling frame under represented both young males and residents of Perth, Western Australia (ABS). This could directly affect adequate representation of the current ADF, which has a large presence in Perth and includes a large proportion of young males.

The numbers of females responding positively to either the ADF or DVA questions were so small that estimates of prevalence of mental health disorders and other outcomes are likely to be unreliable, as reflected in the wide confidence intervals for most odds ratios indicating lack of power to detect differences which might be important from clinical or policy perspectives.

Additionally, the filter questions used to identify respondents with an association with the ADF do not identify a number of other factors potentially relevant to understanding better the prevalence of various mental health disorders or eligibility for DVA support. For instance, while the information was included in the definition of relevant ADF service, it is not known whether an individual is currently serving with the military, what branch of the military they served in, whether their service was as a conscript or a regular, how long or when they served, and whether they deployed on warlike or peace keeping operations. Further, those who served as Army Reserves were not categorised as ADF members and the status of Navy and Air Force Reserves is unclear. These factors are known to be associated with health and social outcomes for those with military service (for example see: Bleier et al, 2011; McGuire et al, 2009; McGuire et al, 2012; Waller et al, 2012). Answers to these questions would help to clarify whether an individual with military service would be likely to meet eligibility requirements for DVA services.

Most women who received benefits from DVA had not served in the ADF. Accordingly, more questions about military service would not help to clarify the eligibility for benefits for this group: that would require including a series of questions on whether their partner had ever served in the military. In sum the NSMHW2, in its current form, has limited utility as a source of data on the prevalence of mental health disorders of current and/or future clients of DVA, other than at a global level.

Statistics Canada conducts the Canadian Community Health Survey (CCHS), which is conceptually similar to the NSMHW2. However, its target population does not include full-time members of the Canadian Forces ([www.statcan.gc.ca](http://www.statcan.gc.ca)). The Department of National Defence has worked with Statistics Canada to conduct a supplemental survey of currently serving regular and reserve armed forces personnel. This supplemental survey included questions aligned with the CCHS and additional questions specifically related to military service. What the supplemental survey could not capture was the experiences of Canadian

military personnel no longer serving. So, while this model is more likely to provide useful information to the Department of Defence it would be of limited direct use for DVA, except for possible prediction of future needs for support.

A similar model to the Canadian one could be adopted and the ABS requested conducted supplemental surveys for current ADF members. The information collected would be directly comparable with the Australian population and it would be high quality data collected by a credible agency. The use of the World Health Organization's Composite International Diagnostic Interview represents the gold standard for measuring mental health outcomes. The Department of Defence would need to provide information on current reserve and full-time members to establish an appropriate sampling frame. Additional questions should be included to cover eligibility for DVA benefits.

However, the Canadian model does not include supplemental surveys for those who are no longer serving in the Defence Force. If it were possible to construct a nominal roll of all those who had ever served in the ADF, this could form the sampling frame for additional supplemental surveys, although this list would contain some individuals who may not be eligible for DVA benefits.

DVA also provides benefits and support to the partners of veterans, however, to our knowledge there is no list or roll of these people. Consequently, it is difficult to know how partners could receive a supplemental survey that would provide the data required by DVA.

## **Conclusion**

The results of these analyses of NSMHW2 suggest that some older men who have served in the ADF and may be eligible to receive a benefit from DVA do not receive it despite the fact that their prevalence of mental health disorders is higher than in the general community.

Recent policy changes, as reported in the DVA 2011-2012 Annual Report, clearly separate financial benefits from the receipt of services or using DVA programs. Potential clients do not have to have an accepted claim or receive a pension in order to receive services. Further dissemination of these policy changes may see more people receiving treatment and potentially reducing the proportion of veterans who are suffering without receiving treatment. However, these changes would be unlikely to be evident from data collected by NSMHW in

2007 or in future surveys without changes to the questions. Currently, it is not clear whether those who may require additional support do not receive it because they do not have appropriate qualifying service and hence are ineligible for the services or whether this particular group underreports mental health disorders to DVA. For women it was not possible from these data to assess if there is a similar group who are eligible for, but do not receive benefits as no data are available on women who may be entitled to a widow's or carer's pension.

Data from the NSMHW are not adequate to meet DVA needs, currently. The sample is too small to provide sufficient numbers of ADF or DVA responders to produce reliable results. Also, the filter questions used (have you ever served, have you ever received a benefit) are not sufficient to establish a responders potential eligibility for benefits. This is particularly the case for the partners of veterans who are only identified if they are already receiving a benefit from DVA.

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## **Appendices**

More detailed data are presented in Appendix tables A-D. The tables include detailed information on the number of males and females in each category (ADF and DVA, DVA only, ADF only, and, Non-ADF and DVA) related to socio-demographic, self-assessed physical health, mental health and life satisfaction variables. The percentages shown in the tables are weighted to account for survey design.

**Appendix A.** Socio-demographic and self-assessed physical health variables for males who have ever served in the Australian Defence Force (ADF) and received a Department of Veterans' Affairs (DVA) benefit, males who have served in the ADF only, males who have received a DVA benefit only and males who have neither served in the ADF nor received a DVA benefit

	Both ADF and DVA males (N=87)		ADF only males (N=360)		DVA only males (N=36)		Non-ADF and DVA males (N=3544)	
	n	%	n	%	n	%	n	%
<b>Age group</b>								
16-24	1	1.4	15	6.5	2	4.9	692	19.3
25-34	4	7.8	26	9.9	2	11.8	536	18.9
35-44	3	2.1	42	12.8	9	24.7	675	20.3
45-54	8	15.5	35	13.2	4	11.2	516	17.6
55-64	24	29.1	69	19.4	8	21.4	529	13.5
65-74	5	4.4	145	31.8	4	6.6	395	6.7
75-85	42	39.7	28	6.4	7	19.4	201	3.8
<b>Marital status</b>								
Never married	11	13.1	60	17.6	8	17.2	1351	37.9
Widowed	12	7.8	27	4.2	3	5.8	102	1.7
Separated/divorced	14	14.1	56	14.0	10	29.9	438	8.1
Married/de facto	50	65.0	217	64.2	15	47.0	1653	52.3
<b>Country of birth</b>								
Australia	77	83.6	313	87.4	21	64.0	2549	71.4
Other	10	16.4	47	12.6	15	36.0	995	28.6
<b>Post school education</b>								
Postgraduate/graduate	7	5.2	82	23.5	1	5.1	708	19.4
Diploma/certificate	38	41.2	134	35.9	17	52.9	1304	38.3
None	40	53.6	135	40.6	17	42.0	1484	42.3
<b>Employment</b>								
Employed	23	37.7	191	60.1	5	13.9	2479	73.0
Unemployed/not in labour force	64	62.3	169	39.9	31	86.1	1065	27.0
<b>Disadvantage</b>								
1st quintile	19	19.4	61	15.3	12	31.4	583	16.2
2nd quintile	18	21.4	72	22.2	7	16.2	713	18.6
3rd quintile	15	16.4	65	16.7	7	28.2	706	20.4
4th quintile	24	29.7	90	27.9	4	10.8	779	22.9
5th quintile	14	13.0	72	17.9	6	13.4	763	21.9
<b>Self-assessed physical health</b>								
Excellent	4	8.0	55	12.3	4	12.4	519	14.9
Very good	11	10.5	111	37.3	5	12.2	1313	37.8
Good	36	40.7	123	31.8	14	36.4	1169	33.2
Fair	25	30.2	53	15.1	8	22.9	427	10.9
Poor	11	10.6	18	3.5	5	16.1	116	3.2

*Note:* Percentages are weighted to account for survey design. Frequencies are unweighted and may not add up to total due to missing data  
DVA = Receiving or has received benefit from Department of Veterans' Affairs      ADF = Ever served in Australian Defence Force

**Appendix B.** Mental health and self-assessed life satisfaction variables for males who have ever served in the Australian Defence Force (ADF) and received a Department of Veterans' Affairs (DVA) benefit, males who have served in the ADF only, males who have received a DVA benefit only and males who have neither served in the ADF nor received a DVA benefit

	Both ADF and DVA males (N=87)		ADF only males (N=360)		DVA only males (N=36)		Non-ADF and DVA males (N=3544)	
	n	%	n	%	n	%	n	%
<b>Lifetime mental health disorder</b>								
Any	48	55.0	171	49.4	24	71.4	1524	44.7
Affective	16	22.3	48	13.8	9	30.8	410	11.6
Depression	16	22.3	45	12.9	9	30.8	393	11.1
Other affective	1	0.6	5	1.4	2	11.3	66	1.9
Anxiety	19	24.3	49	14.8	14	41.2	567	15.9
PTSD	7	9.0	18	5.1	6	21.7	155	4.4
Other anxiety	10	9.1	30	9.3	8	19.5	399	11.0
Substance use	37	39.6	135	36.3	17	43.9	1167	34.4
Alcohol	37	39.6	130	35.3	17	43.9	1082	32.1
Other	2	1.3	21	5.2	3	6.9	343	10.6
Ever attempted suicide	5	4.7	9	1.8	4	8.9	91	2.1
<b>K10</b>								
Low or no psychological distress	59	68.2	268	72.1	14	37.2	2683	75.6
Medium	25	28.9	84	24.4	16	43.0	793	22.6
Severe	3	2.9	8	3.5	6	19.9	67	1.7
<b>Self-assessed mental health</b>								
Excellent	16	24.7	101	31.2	10	28.6	1076	31.1
Very good	16	16.2	125	34.0	8	20.3	1321	37.1
Good	35	39.2	96	22.7	12	28.5	842	23.7
Fair	17	17.3	32	9.8	5	21.0	267	7.0
Poor	3	2.6	6	2.2	1	1.5	37	1.0
<b>Self-assessed life satisfaction</b>								
Delighted	12	14.7	52	16.2	3	6.6	584	17.6
Pleased	19	26.4	126	34.6	5	14.0	1237	36.0
Mostly satisfied	34	33.5	121	33.6	11	28.2	1103	30.3
Mixed	15	19.8	49	11.0	11	31.5	496	12.8
Mostly dissatisfied	7	5.6	12	4.5	6	19.7	123	3.2
<b>WHODAS 2.0</b>								
Significant disability (>90 <sup>th</sup> sample percentile)	27	24.5	43	11.0	12	35.1	273	7.3

Note: Percentages are weighted to account for survey design. Frequencies are unweighted and may not add up to total due to missing data

DVA = Receiving or has received benefit from Department of Veterans' Affairs

ADF = Ever served in Australian Defence Force

**Appendix C.** Socio-demographic and self-assessed physical health variables for females who have ever served in the Australian Defence Force (ADF) and received a Department of Veterans' Affairs (DVA) benefit, females who have served in the ADF only, females who have received a DVA benefit only and females who have neither served in the ADF nor received a DVA benefit

	Both ADF and DVA females (N=20)		ADF only females (N=53)		DVA only females (N=168)		Non-ADF and DVA females (N=4573)	
	n	%	n	%	n	%	n	%
<b>Age group</b>								
16-24	0	0.0	8	16.6	4	2.4	830	17.5
25-34	3	24.2	6	11.8	5	2.9	807	18.4
35-44	0	0.0	15	24.8	4	6.8	839	18.9
45-54	3	36.1	5	19.7	10	12.8	674	17.9
55-64	1	4.3	7	9.8	19	15.3	640	14.2
65-74	3	11.5	4	7.6	19	8.1	495	8.8
75-85	10	23.9	8	9.7	107	51.7	288	4.3
<b>Marital status</b>								
Never married	3	16.4	18	32.8	16	14.5	1427	29.6
Widowed	8	20.3	7	7.7	105	50.1	430	5.7
Separated/divorced	1	2.6	10	27.3	7	4.3	715	11.3
Married/de facto	8	60.6	18	32.2	40	31.0	2001	53.4
<b>Country of birth</b>								
Australia	20	100.0	48	93.8	139	83.2	3363	72.4
Other	0	0.0	5	6.2	29	16.8	1210	27.6
<b>Post school education</b>								
Postgraduate/graduate	1	0.9	11	17.7	19	10.3	1045	21.3
Diploma/certificate	7	64.2	26	40.7	28	16.4	1379	30.4
None	12	35.0	15	41.7	120	73.3	2094	48.3
<b>Employment</b>								
Employed	5	27.4	28	60.3	20	14.6	2748	60.9
Unemployed/not in labour force	15	72.6	25	39.7	148	85.4	1825	39.1
<b>Disadvantage</b>								
1st quintile	2	35.1	6	10.0	33	21.6	813	17.4
2nd quintile	2	6.2	12	30.2	39	24.6	893	19.1
3rd quintile	5	14.8	9	22.1	34	16.8	952	20.8
4th quintile	6	20.7	11	16.4	31	19.0	912	20.3
5th quintile	5	23.2	15	21.4	31	18.1	1003	22.4
<b>Self-assessed physical health</b>								
Excellent	1	2.9	9	12.6	18	14.5	667	14.0
Very good	5	29.6	23	36.8	55	35.2	1796	40.1
Good	8	22.0	14	42.1	52	28.5	1445	31.7
Fair	3	8.6	6	7.2	27	13.2	531	11.2
Poor	3	36.9	1	1.3	16	8.6	134	3.0

*Note:* Percentages are weighted to account for survey design. Frequencies are unweighted and may not add up to total due to missing data  
DVA = Receiving or has received benefit from Department of Veterans' Affairs      ADF = Ever served in Australian Defence Force

**Appendix D.** Mental health and self-assessed life satisfaction variables for females who have ever served in the Australian Defence Force (ADF) and received a Department of Veterans' Affairs (DVA) benefit, females who have served in the ADF only, females who have received a DVA benefit only, and females who have neither served in the ADF nor received a DVA benefit

	Both ADF and DVA females (N=20)		ADF only females (N=53)		DVA only females (N=168)		Non-ADF and DVA females (N=4573)	
	n	%	n	%	n	%	n	%
<b>Lifetime mental health disorder</b>								
Any	4	50.6	20	49.3	42	27.2	1742	37.9
Affective	2	14.7	9	31.6	21	16.2	867	18.2
Depression	2	14.7	9	31.6	21	16.2	846	17.9
Other affective	1	15.7	1	1.2	2	0.9	132	2.8
Anxiety	3	17.0	10	17.6	25	13.7	1138	25.0
PTSD	2	3.2	4	5.8	10	6.3	462	9.9
Other anxiety	1	13.9	6	11.7	15	7.5	658	14.8
Substance use	2	34.4	9	27.3	12	6.1	664	13.9
Alcohol	2	34.4	9	27.3	12	6.1	558	11.8
Other	0	.0	3	4.5	0	0	230	4.9
Ever attempted suicide	3	52.4	3	4.7	5	3.2	208	4.1
<b>K10</b>								
Low or no psychological distress	14	43.5	43	67.8	115	65.8	3085	67.4
Medium	5	55.6	10	32.2	52	33.7	1346	29.4
Severe	1	0.9	0	0.0	1	0.5	141	3.2
<b>Self-assessed mental health</b>								
Excellent	4	25.9	17	24.2	27	16.5	1244	27.9
Very good	8	24.4	18	30.1	59	41.5	1821	40.2
Good	3	6.6	15	42.0	60	30.6	1088	23.4
Fair	4	9.5	3	3.7	21	10.9	343	7.0
Poor	1	33.5	0	0.0	1	0.5	77	1.5
<b>Self-assessed life satisfaction</b>								
Delighted	1	1.5	12	14.8	15	9.2	818	18.0
Pleased	5	18.2	22	41.5	42	22.6	1458	32.1
Mostly satisfied	11	44.3	10	16.1	84	49.6	1422	30.8
Mixed	2	2.5	9	27.7	26	18.2	722	15.5
Mostly dissatisfied	1	33.5	0	0.0	1	0.4	153	3.6
<b>WHODAS 2.0</b>								
Significant disability (>90 <sup>th</sup> sample percentile)	9	50.6	12	19.1	40	22.3	499	10.6

Note: Percentages are weighted to account for survey design. Frequencies are unweighted and may not add up to total due to missing data

DVA = Receiving or has received benefit from Department of Veterans' Affairs

ADF = Ever served in Australian Defence Force