

# DRA Wellbeing Study Project Closure Report

25 February 2024



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## About the report

This report was prepared for Disaster Relief Australia (DRA) by dr. Joep van Agteren and dr. Matthew Iasiello from the South Australian Health and Medical Research Institute (SAHMRI) Be Well Co.

We want to thank DRA for the opportunity to conduct the study that underpins this report. In particular, we want to thank the Wellbeing Project team members Cindy Wadsworth, Anastasia Bougesis and Michael Hoffman, DRA leadership and its CEO Geoff Evans, and the DRA members that have contributed their valuable time and data to this project.

We want to thank Movember and the Distinguished Gentleman's Ride - the project funders - for their support, the provision of expertise and the opportunities to connect and share with other Veterans and First Responders Mental Health Grant Program recipients. We also want to thank them for the opportunity to connect with the wider grant program evaluator, University of Canberra, in particular Sue Lukersmith and Cindy Woods.

We finally want to thank dr. Dan Fassnacht and dr. Kathina Ali for their support throughout the project, dr. Jonathan Bartholomaeus for guidance with the analysis plan and the wider SAHMRI Be Well Co team for their support in conducting this project.



# DRA Wellbeing Study

## executive summary

### DRA in a nutshell

Disaster Relief Australia (DRA) is a veteran-led not-for-profit organisation. DRA brings hope and relief to communities devastated by disasters, helping people in their worst days. DRA's mission is to unite the skills and experience of military veterans and emergency service specialists to deploy disaster relief teams in Australia and around the world in the wake of natural disasters and humanitarian crises. DRA is present in every state and territory nationally, ensuring continuous capacity to assist Australian communities when they need it most. Between and during disaster response operations, DRA engages its volunteers across Australia by providing additional benefits such as continued professional development, training, employment opportunities, community service projects and social events.

### DRA Wellbeing Study

Prior research indicates that participating in volunteering and civic service may have positive associations with mental health and wellbeing. Volunteering in general has for example been linked to a range of factors associated with good mental wellbeing, including building a sense of meaning and purpose, a sense of connection and community, and a sense of benevolence and contribution to a larger cause than oneself. In promoting these aspects of wellbeing, volunteering could prevent the development of future mental health challenges.

The DRA Wellbeing Study is an independent scientific study, funded by Movember (men's health and wellbeing advocates) and the Distinguished Gentlemen's ride that investigates whether service in DRA - by being part of a volunteer program that taps into the specific skillsets and qualities that veterans, first responders and other civilian volunteers can bring to aiding in disaster relief work - can lead to psychological and psychosocial health benefits for the volunteers. The grant has a specific focus on male veterans and first responders. This study however extended to all DRA volunteers: this report discusses the findings for all members with a separate report being prepared that specifically

covers the implications from a male veteran and first responder perspective.

The study, led by the South Australian Health and Medical Research Institute (SAHMRI), ran between March 2022 to February 2024, studying 786 DRA volunteers. Participants from every Australian state and territory contributed to the study.

### Aim of the report

This report summarises the results from the DRA Wellbeing Study, and provides:

1. A literature review of veteran-specific and general literature on mental health and wellbeing, resulting in a proposed model of wellbeing that describes how volunteering for DRA impacts member mental health.
2. Qualitative data validating the DRA Wellbeing model, describing the longer term impact that volunteering for DRA has on volunteers, their mental health and their life in general.
3. A baseline profile of study participants
4. A description of overall longer-term benefits participants noted through survey responses.
5. Data on the immediate impact that participating in disaster relief deployments has on mental health outcomes.
6. Data on the impact of volunteering using quarterly surveys over a 12 month period.
7. A conclusion and implications section

Please note: the report is geared towards a general audience and as such *does not* provide detailed statistical information, which will be the focus of a dedicated scientific article.

### A note on mental health

In this report, the term mental health is used as an umbrella term that captures states of mental illness and distress, as well as states of wellbeing. These two states – illness and wellbeing, the characteristics that define them, and their causes – should be seen as related but independent outcomes, as is evidenced by the most recent developments in academic literature and by lived experience. For example, one can be diagnosed with and recovering from illness (e.g. PTSD) while also experiencing aspects of wellbeing (e.g. purpose, positive relationships). Improving wellbeing not only can prevent illness from occurring, but it can also aid in its recovery, providing the argumentation for the important role that target characteristics of

wellbeing via volunteering can have on the mental health of DRA members.

## Developing DRA's Wellbeing Model

To provide a framework for the study, we created a theoretical model to describe how DRA may affect volunteer wellbeing. Via the literature review presented in chapter 3, we describe the fact that the mechanisms through which volunteering for DRA may lead to improved mental health, is distinct from that of mainstay mental health interventions such as psychological therapy. Where the latter are geared towards largely dealing with immediate symptoms of *illness*, the activities one does for DRA map primarily onto drivers of mental *wellbeing*.

Chapter 3 proposes that DRA allows volunteers to

1. Be physically active, working towards a common goal by helping others at their darkest hour.
2. Be in an accepting environment with positive role models that utilises many positive qualities of the veteran identity.
3. Undertake training and development opportunities.
4. be recognised for contribution of valuable skills.

These mechanisms are proposed to promote DRA members' wellbeing, including a renewed sense of identity, optimism about the future, competence, purpose, self-development, enjoyment and positive relationships.

As such the model proposes that volunteering for DRA is inherently strength and capacity-building in nature, rather than focused on eliminating deficits. All of this is done through a vehicle (volunteering) that does not overtly talk about mental health, reducing many of the perceived threats that engaging in wellbeing-promoting behaviours can bring. For example, veterans participate in communal get-togethers that happen at the end of each day of deployments. This does not just form long-lasting relationships but allows peers to discuss and reflect upon a shared experience, which often includes reflecting on ways to handle their mental health ongoingly.

In parallel with these more organic benefits that people get from volunteering, DRA provides official wellbeing supports, including follow-up wellbeing phone calls after deployments and member check-ins during deployments by for example the wellbeing manager when people may be struggling during deployment.

Figure 1 outlined below and presented again in Chapter 3 captures the argument put forth in the review into a singular image describing the model, showing that a combination of informal and semi-formal wellbeing-promoting activities during and after deployment, supported by a culture that promotes self-development, connection and a sense of a shared identity, can lead to improvements in mental wellbeing, which in turn can prevent veteran mental health from worsening or actively aid veterans in their recovery process.

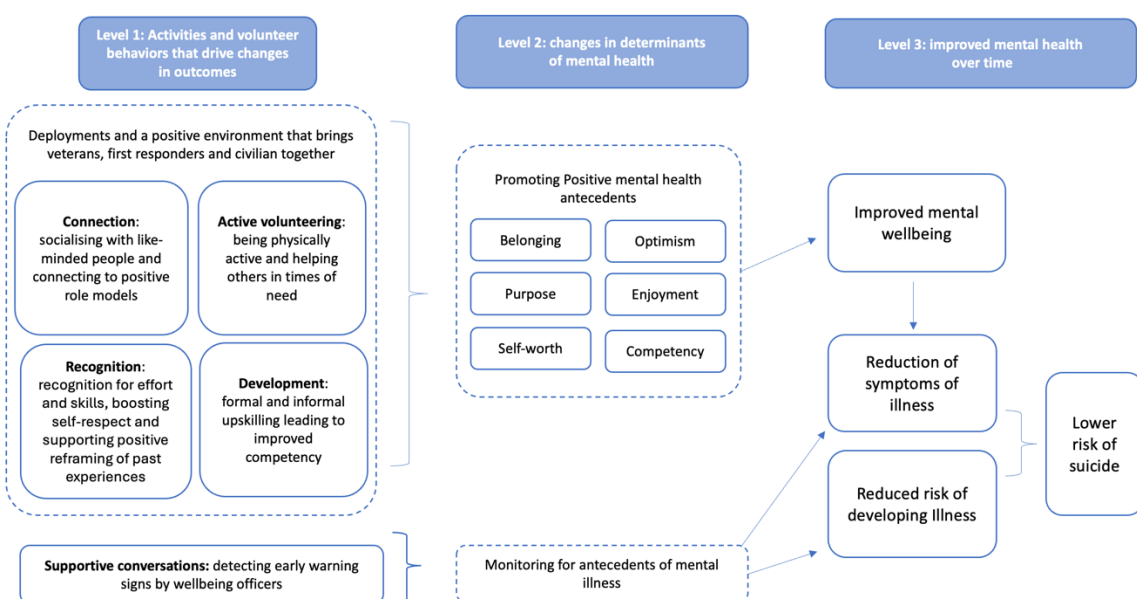


Figure 1. DRA Wellbeing Model proposing the mechanisms through which DRA promotes antecedents of wellbeing, which together with monitoring for more symptoms can help promote healing and prevent more serious problems from occurring

## Qualitative interviews: validating the DRA wellbeing model

**How did we test this?** We ran a set of 33 in-depth interviews with a diverse group of DRA members, ranging from those that are highly engaged, to people who never ended up deploying and from critical friends to current staff. Results are described in chapter 4.

**What did we find?** The semi-structured interviews shed detailed insights into the motivations and impact experienced by volunteers, *thereby providing evidence to validate and support the DRA Wellbeing model*. The interviews particularly provide validation for the unique elements that DRA brings to volunteers and how and why they influence their mental health and wellbeing:

- DRA provided volunteers a (renewed) sense of purpose, by getting people to reconnect to serving the community, offering volunteers perspective on their own life situation.
- Volunteers could generally be grouped into two distinct groups: those that were vulnerable or had a more troubling life journey versus those that are (currently) traveling well in life and wanted to start giving back to society. Both groups indicated to have found benefits for their wellbeing in their own ways.
- Many of the vulnerable volunteers were veterans, as opposed to first responders or other civilians. Volunteering made more vulnerable veterans feel useful again, helping them regain a sense of purpose, often in times when they felt they did not have many options left. The increased sense of self-worth was greatly stimulated by the accepting environment within DRA. This was particularly important for some veterans who valued the self-development opportunities at times when they were at extreme low points in their lives.
- The accepting culture of like-minded people that embraced the military identity provides positive role modelling, allowing some of the veterans to go from a place of shame to finding a sense of pride in their military past. This positive environment of role models was again of particularly value to male veterans, who often spoke about more problematic cultural and behaviour traits within services staff.
- At the same time, this positive military-based goal-driven environment was key to engage

volunteers. For example, many first responders we spoke to found this particularly appealing as it provided an environment that felt familiar to them

- Upskilling opportunities provided by DRA helped build participants' self-worth, while also giving them credentials to have better opportunities in day-to-day life, including being able to attract paid employment.
- Being able to deploy with family enhanced the experience for a subset of members.
- While for some the mental health benefits were not the most obvious benefits, others credited DRA directly as being one of the foremost reasons they are still alive. As one of the interviewees noted:

*"...See, the easiest way I can put it is probably.. DRA saved my life. that's how I feel for sure."*

## The baseline mental health profile of DRA volunteers

DRA volunteers on average score well on mental health outcome measures, specifically when comparing them to a general population control group, indicating a relatively mentally healthy population. The respondents were generally open to work on their mental health, both in terms of engaging with formal services and informal or self-help avenues. A potential explanation for some of the higher results lies in the presence of a high proportion of older volunteers, who generally demonstrate better mental health compared to young people and people in midlife. Regardless of the good average scores at baseline, there is still a sizeable cohort of people who display symptoms of current mental illness (current pathology).

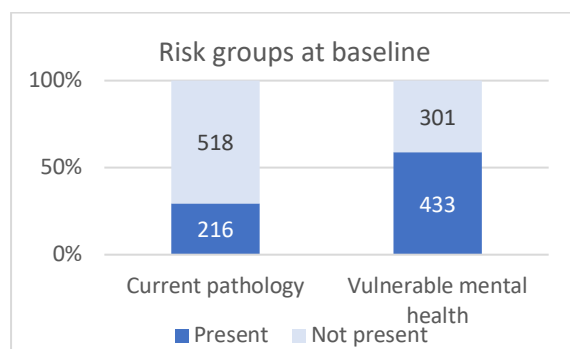


Figure 2. Number of participants which met official cut-offs (dark blue parts of the graph) on the scientific questionnaires we used to indicate they show current symptoms of mental illness (left) or met a risk cut-off on any of the measures we used (right).

## Attitudes towards volunteering in the total sample of participants

**How did we test this?** We asked participants in the quarterly studies questions on their perceptions of the volunteering experience at DRA using a combination of rating scales and free-text responses. Results are presented in chapter 7.

**What did we find?** The surveys showed us that:

- 81% of respondents, most who had been with the organisation for 1 or more years, reported that DRA had a positive or very positive effect on them in general, with 74.5% saying that DRA had a positive or very positive effect specifically on their mental health. Those that rated the impact lower often explained that they had not yet been deployed (e.g. they were new members who had not yet deployed at time of the survey, effectively placing them in the control group)
- Of the military veteran respondents, 53% indicated that volunteering with DRA helped them during their transition to civilian life. Some indicated that DRA did not help transition largely because their transition was either smooth or happened too far in the past.
- Volunteers who deployed with their family indicated how deploying together was a positive experience that helped family members form a stronger bond.

## The immediate impact of deployments

**How did we test this?** We surveyed 91 volunteers daily for a period of two weeks capturing their mental health before, during and immediately after deployments. We measured a range of wellbeing and distress indicators. We used specific statistical tests to confirm that the changes we observed were both real and meaningful. Results are provided in chapter 8.

**What did we find?** The data – graphed in figure 3 and 4 and worked out further in chapter 8 - clearly shows that mental health outcomes of volunteers improved during and immediately after deployment, as can be seen in the change from pre-deployment scores. Across the total sample, all measured outcomes (wellbeing indicators, purpose, anxiety, depression, loneliness, resilience) improved significantly with scientifically meaningful effect sizes, except for stress. Observing scientifically meaningful effects

effectively means that the observed differences in our data are unlikely to be the result of chance, i.e. they highlight a real observed positive change.

Effects remained significant post deployment for wellbeing indicators, purpose, loneliness, anxiety and feeling resilient. Vulnerable individuals with a mental health diagnosis showed significantly larger effects for all outcomes, indicating that this group experienced significantly stronger changes in their mental health as a result of deployment.

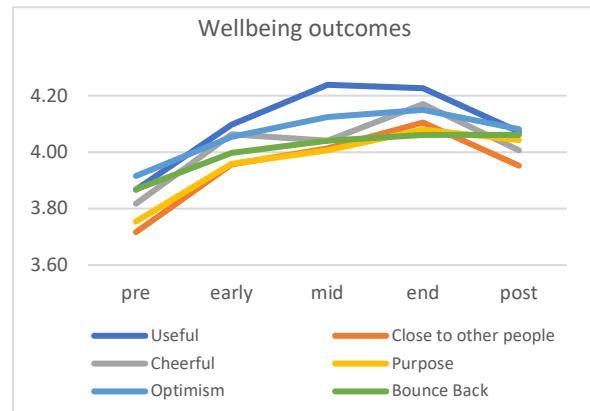


Figure 3. Daily surveys on wellbeing outcomes grouped into scores per stage of deployment. Higher scores reflect improvement.

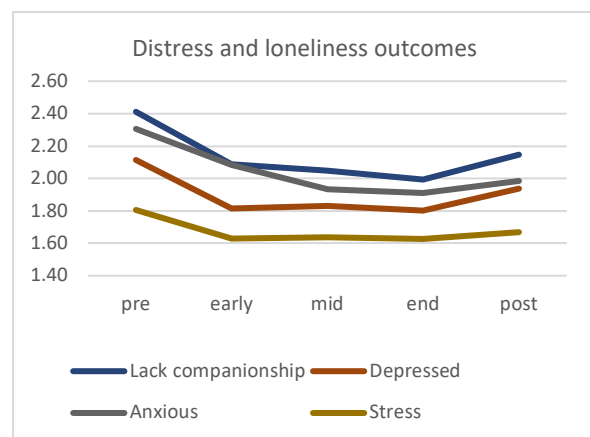


Figure 4. Daily surveys on distress and loneliness grouped into scores per stage of deployment. Lower scores reflect improvement.

## Longer-term impacts: results from the quarterly studies

**How did we test this?** We conducted quarterly surveys over a 12 month period. 733 out of the total 786 Participants filled out surveys on a range of scientifically validated mental health questionnaires. We ran statistical analyses on the observations over time and compared DRA volunteers who were actively deploying, with two

separate control groups, being: DRA volunteers who were inactive in the moment and a general population control group.

**What did we find?** Results from a range of statistical analyses showed us that active volunteering significantly impacts mental health outcomes over the 12-month period. Volunteers need to however show ongoing commitment to see longer-term benefits as people who only deploy one-time do not show a significant improvement. Overall, results most consistently indicated improvements in wellbeing, optimism, loneliness and lower distress, depression and anxiety symptoms for people who actively deployed compared to the control groups. Figure 5 and 6 below shows the trajectories for wellbeing and anxiety respectively. Graphs for the other outcomes can be found on page 51. On the whole, and in line with the deployment studies, effects seemed to be more pronounced for people with

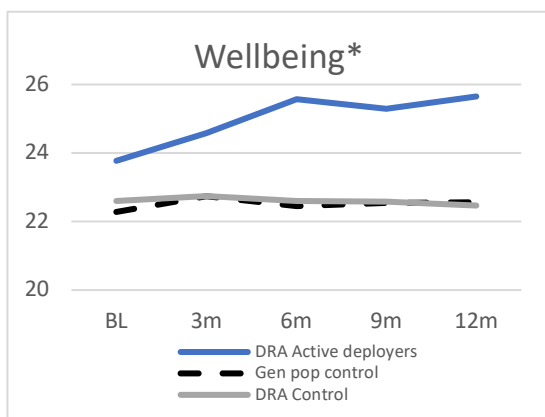


Figure 5. Quarterly scores on the outcome of mental wellbeing for the three study groups.

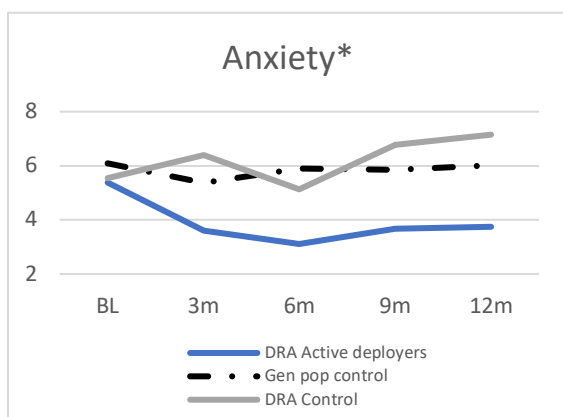


Figure 6. Quarterly scores on the outcome of anxiety for the three study groups.

one of the mental health risk cores, although results over the 12-month period were less marked than observed in the deployment studies.

## Conclusion and implications

This study, which is underpinned by a number of distinct methodologies combining quantitative and qualitative data over a longer period of time, provides robust evidence indicating that volunteering for DRA can have a material benefit on an individual's mental health and wellbeing, particularly for volunteers who deploy regularly and those that have poorer mental health to start with.

This is particularly striking considering DRA is not a mental health service, but rather makes a positive contribution through its modus operandi and culture. It shows how important informal pathways can be in helping people improve their outlook in life and the way they feel, while at the same time providing an essential service (i.e. disaster relief) to the nation. By creating an environment that gets volunteers physically active, by helping people in need, creating an accepting environment that positively renews the veteran identity, and doing so while offering opportunities for upskilling and recognition, the data so far supports the notion that volunteering at DRA leads to improved aspects of members' wellbeing. This activity-driven nature, combined with a supportive environment of positive role models seems particularly useful for male veterans looking to find ways to improve their mental health wellbeing.

Despite data collection having come to an end, dissemination of the project's results has only just begun. This report marks the start for analysing the wealth of data collected in this study, with conference presentations and number of peer reviewed publications being prepared.



the  $\mathbb{R}^n$  is a linear space over  $\mathbb{R}$  with the usual addition and scalar multiplication. The inner product is defined by

$$\langle x, y \rangle = x_1 y_1 + x_2 y_2 + \dots + x_n y_n \quad (1)$$

where  $x = (x_1, x_2, \dots, x_n)$  and  $y = (y_1, y_2, \dots, y_n)$  are vectors in  $\mathbb{R}^n$ .

The norm of a vector  $x$  is defined by  $\|x\| = \sqrt{\langle x, x \rangle}$ . The distance between two vectors  $x$  and  $y$  is defined by  $\|x - y\|$ .

The angle between two vectors  $x$  and  $y$  is defined by  $\cos \theta = \frac{\langle x, y \rangle}{\|x\| \|y\|}$ .

The orthogonal projection of a vector  $x$  onto a vector  $y$  is defined by  $\frac{\langle x, y \rangle}{\|y\|^2} y$ .

The orthogonal complement of a subspace  $W$  is defined by  $W^\perp = \{x \in \mathbb{R}^n \mid \langle x, y \rangle = 0 \text{ for all } y \in W\}$ .

The orthogonal decomposition theorem states that any vector  $x$  in  $\mathbb{R}^n$  can be written as the sum of a vector in  $W$  and a vector in  $W^\perp$ .

The Gram-Schmidt process is a method for constructing an orthonormal basis for a subspace of  $\mathbb{R}^n$ .

The QR decomposition of a matrix  $A$  is a factorization of  $A$  into a product of an orthogonal matrix  $Q$  and an upper triangular matrix  $R$ .

The least squares solution of a system of linear equations  $Ax = b$  is the vector  $x$  that minimizes the norm of the residual  $\|Ax - b\|$ .

The singular value decomposition (SVD) of a matrix  $A$  is a factorization of  $A$  into a product of an orthogonal matrix  $U$ , a diagonal matrix  $\Sigma$ , and another orthogonal matrix  $V$ .

The principal component analysis (PCA) is a statistical technique for reducing the dimensionality of a dataset.

The Fourier transform is a mathematical technique for decomposing a function into its constituent frequencies.

The Laplace transform is a mathematical technique for solving differential equations.

The Z-transform is a mathematical technique for solving difference equations.

The discrete Fourier transform (DFT) is a mathematical technique for decomposing a discrete-time signal into its constituent frequencies.

# Chapter 1. project background and description of DRA

## About Disaster Relief Australia

### Mission and purpose

Disaster Relief Australia (DRA) is a veteran-led not-for-profit organisation, which brings relief to communities devastated by disasters, providing help and hope for people in their toughest days.

DRA's mission is to unite the skills and experience of military veterans with emergency service specialists to deploy disaster relief teams in Australia and around the world in the wake of natural disasters and humanitarian crises.

### Description of key activities

DRA combines modern military technology with emergency services best-practice and operates at the cutting edge of disaster relief.

DRA provides a range of professional relief capabilities, include incident management; work order management; expedient home repair; damage and impact assessment; spontaneous volunteer management; first aid and psychological first aid supports; aerial damage assessment and mapping; debris management and restoring access, plus building resilience and capacity building.

DRA coordinates 'operations' in response to disasters and crises. Each operation carries a unique name that pays homage to DRA's focus on veterans and the military community. Operations

consists of a series of 'deployment waves', which last approximately a week. Volunteers are able to join one or more deployments waves per operation, depending on their availability and interest in contributing to the particular relief effort. There is no minimum number of deployments one needs to do: the choice of volunteering for a particular operation is entirely up to the individual volunteer.

Between and during disaster response operations, DRA engages its volunteers across Australia by providing additional benefits such as continued professional development, training, employment opportunities, community service projects and social events.

DRA has Disaster Relief Teams located in every state and territory nationally, providing it with greater capacity to assist Australian communities when they need it the most.

As mentioned before, DRA is a proud veteran-led organisation, but is open to non-veterans. Of particular interest is the recruitment of first responders, both active first responders and those who have retired, as first responders have specific skillsets to deal with the aftermath of a disaster.

DRA is also a family affair, with the organisation actively encouraging family members - most notably family members of veterans - to deploy together, to improve family relationships and connections.

## The potential benefit of volunteering on mental health

While the principal aim for many DRA members is to serve disaster affected communities, focusing on delivering positive outcomes for people other than themselves, there is reason to think this contribution may have positive flow-on effects for the individual volunteer's mental health and wellbeing (1). Establishing whether there is a potential positive effect of volunteering for DRA specifically, is particularly interesting considering the two key population groups the organisation relies on: military veterans and first responders.

### Mental Health in Veterans and first responders.

Military veteran mental health is widely documented to be a crucial challenge with rates of depression and anxiety, substance abuse, Post-Traumatic Stress Disorder (PTSD) and high risk of suicide being prevalent (2-4). In addition to the aforementioned potential negative impact that service can have on the mental health of military veterans, particularly if they have seen active combat(5), it is posited that the mental health and wellbeing of veterans can be impaired as a result of integration challenges *after* service (6, 7). Life during service is highly structured, services staff often feel driven in a common purpose, they feel part of a tight community and feel respected for what they stand for. When re-integrating into civilian society, many of these factors are affected. These include loss of purpose when returning home, lack of social networks, limited number of social relationships, stigmatisation towards discussing mental health, and difficulty transferring skills learned in the military to civilian employment (8). These challenges compound the high prevalence of mental health problems, and feed into related problems such as the rates of homelessness in the veteran population (9).

Similar to services staff, mental health challenges are well documented in emergency services staff and first responders(10, 11). For example, a national survey of over 21,000 police and emergency services personnel in Australia highlighted the similarity in both statistics between the veteran and first responder cohorts (12). The study found that one in four former emergency services personnel suffer probable PTSD, with one

in five experiencing high psychological distress. In their drive to do well for the wider community and other people, self-care takes a backseat with help-seeking and service use among first responders traditionally being low (13).

### Volunteering as a complementary strategy to improve drivers of good mental health.

Formal interventions, structured programs and therapy are often seen as the default way to help improve someone's mental health and wellbeing. Even though they have an established evidence base to show their significant positive impacts, they are not the only way to help people improve their mental health. The What Works guides by Beyond Blue clearly show that a range of other activities have emerging or established evidence in improving outcomes such as depression, anxiety and mental wellbeing (14-16).

Volunteering may be one of these activities. The positive impact of volunteering is often considered to be linked to helping contribute to a greater good, feeling a sense of purpose, utilising one's skills and being part of a like-minded community (17-20). Importantly, as argued earlier, these factors may be impaired for some returning service men and woman, meaning volunteering could be thought of as an informal avenue to improve these challenges to mental health. Similarly, tapping into a sense of purpose and desire to help people in need, directly taps into core values for first responders and veterans. This implies that there may be an opportunity to use volunteering as an informal avenue to improve the state of these wellbeing drivers and in turn help build wellbeing and mental health, not just for returned services staff but for first responders and any other volunteer for that matter as well.

Indeed, for the last five years, DRA has been collecting qualitative data on the experience of the veterans and first responders that engaged with their volunteering program (21). This rough preliminary data validates the above mentioned existing scientific insights: the data shows recurring themes of loss of purpose, and the importance of identity, camaraderie and skills transfer the program brings, all themes that are in alignment with existing literature (8).

## The Veterans and First Responders Mental Health Grant Program

To test the positive impact that volunteering for DRA has on its volunteers, DRA teamed up with researchers from the South Australian Health and Medical Research Institute (SAHMRI) and Flinders University to develop and implement the DRA Wellbeing study.

The study was funded as part of a competitive global grant program by Movember and the Distinguished Gentleman's ride. The Veterans and First Responders Mental Health Grant Program. This grant program was developed in direct response to the aforementioned increased risk of mental health problems, including a higher risk of suicide in the veteran and first responders' community.

The program sets out to identify promising initiatives that aim to improve veteran and first responder's mental health and lower suicide risk, by providing funding and other supports to projects that demonstrate their effectiveness. The DRA Wellbeing study was one of 15 successful projects from across Australia, New Zealand, Europe, United Kingdom, Canada and the United States.

### A gendered lens

The Veterans and First Responders Mental Health Grant Program has placed a specific focus on the role of gender in improving health outcomes. As such the program emphasises the need for funded projects to apply a 'gendered lens' or in other words, to actively consider how gender can play a positive or negative role in leading to changed outcomes.

Unlike other studies within the program, who develop or adapt interventions, the DRA wellbeing study is an observational evaluation study. Rather than using a gendered lens to positively change DRA *during* the study, our focus is to use a gendered lens while we *evaluate*, using the findings to provide DRA with knowledge to harness positive masculinity and improve the way it functions in the future. The results will be integrated within the wider narrative of this report, and a separate document will be created that pulls the threads together.



## Chapter 2. Aims and methods

### Aims for the current report

The DRA Wellbeing Study (Study) set out to capture the impact that volunteering for DRA has on the mental health and wellbeing of its members. The Study ran between March 2022 and February 2024. This report summarises its findings. The report sets out to achieve a number of key aims.

**Aim 1:** to provide a literature review that integrates innovative insights from of veteran- and first-responder specific and general mental health publications. It provides the theoretical logic that describes how activities within DRA can contribute to positive improvements in a range of aspects of wellbeing, and in turn reduce risk of mental illness. This results in a wellbeing model visualising how volunteering at DRA improves mental health outcomes.

**Aim 2:** to describe the results from in-depth semi-structured qualitative interviews on the impact of DRA volunteering in general. Interviews with a subset of participants allows us to detail various 'stories of change', which are difficult to capture using singular questions in surveys or the numbers-driven (or quantitative) approaches that underpin some of the next aims.

**Aim 3:** to establish a baseline profile of the study participants. The report provides a general picture of the respondents within the study, providing insights into their demographic make-up and their general mental health profile at the start of the study.

**Aim 4:** to use the results from a subset of survey questions to form an initial understanding of the tangible benefits that volunteers have experienced since they joined DRA. It explores how it may have impacted their life and their mental health, whether it helped them in their transition from the military or first responder careers and what impact volunteering with family members had for those who deployed together.

**Aim 5:** to describe the impact that DRA deployments specifically have on mental health and wellbeing before, during and after deployments. We used a daily diary methodology to capture daily levels of mental health for a two week period, allowing us to scientifically capture the immediate benefit that volunteers may experience.

**Aim 6:** to describe the results from five quarterly surveys spanning 12 months of activity in DRA. This allows us to map differences in mental health outcomes for DRA members who actively deploy versus those that do not, while at the same time comparing this to a non-DRA control group for context.

**Aim 7:** to integrate the findings from aim 1 to 6, provide a brief explanation of and context to its findings and discussing a number of recommendations that stem from the study's findings.

## The methods that underpin this study

This chapter provides a brief description of the methodology used within the study, aiming to provide the most *essential* knowledge needed to properly understand its findings and conclusions.

### Project overview and timeline

To explain the methods we used, it first pays to understand the timeline that the study worked towards, which is visualised on the next page. The visual details highlight the timeline of specific project phases. Following an initial setup, the project embarked on a pilot phase. During this stage, we evaluated the survey distribution process to members and conducted multiple trial runs to assess the execution of the 2-week deployment sub-studies. After a short series of adjustments informed by the pilot's outcomes, the study officially began its first quarterly studies in August 2022.

The project team set up a website and developed a communication strategy before the launch of the first quarterly survey. Every volunteer went on to receive a personalised email invite to take part in the 12 month study. The surveys remained open for 2-3 weeks on end, with volunteers receiving multiple reminders to complete surveys in case they did not yet complete a survey. To build engagement, the project team also launched group challenges per local Disaster Relief Team (DRT), using members and leaders within the DRT to further promote participation.

The visual names the key outcome variables that were measured within each of the quarterly surveys. Variables and questions remained the same across the time points, allowing us to measure any change over time. The outcome measures are explained in more detail below.

The semi-structured interviews took place between May and November 2023. These were conducted with a subset of volunteers. These volunteers were selected via two ways:

1. We used the DRA project team to identify a number of different types of volunteers and employees.
2. We invited volunteers that participated in at least one of the surveys.

The figure also displays the three groups (DRA active group, DRA control group and general population control group) that are being compared throughout the quarterly study.

Finally, the timeline indicates the fact that deployments happened all throughout the active period of the study. We combined the data from all the operations to form the deployment studies. The dots on the timeline are indicative only and aim to illustrate that deployments were scattered during the year, depending on when disasters have occurred.

The bottom part of the visual details the timeline for an individual deployment study. Deployment studies centre around disaster relief 'operations'. Each operation consists of a number of deployments. The aim of the deployment sub-studies was to measure the effect that going on deployment has on mental health and wellbeing.

The figure details 15 measurements that were conducted before, during and after a deployment, as well as a final measurement at day 21. Each day the participant received a single question for each of the variables mentioned in the figure. The questions were taken from the validated scientific scales we used for the quarterly studies.

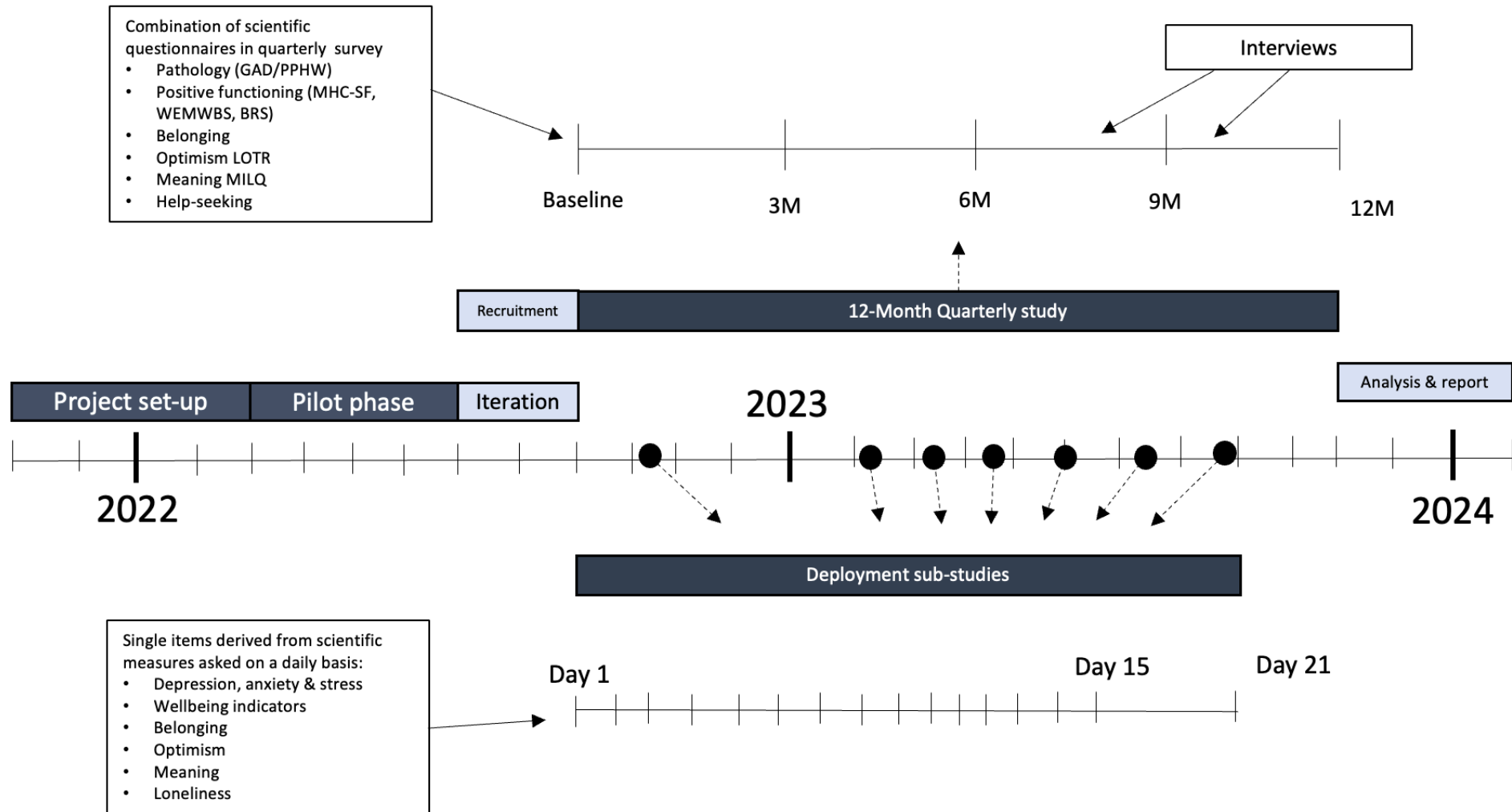


Figure 7. Visual showing the timeline for the study. It highlights when different phases occur and shows the timing for measurements during the quarterly studies (top) and deployment sub-studies (bottom). It also provides the outcome measures we used and their acronyms, which are further described on the next page.



## What outcome measures were used?

A combination of validated mental health and wellbeing questionnaires were used in the quarterly studies. We measured positive mental health indicators, where higher scores reflect better outcomes, and negative mental health indicators, where higher scores reflect poorer outcomes.

### Positive mental health outcomes

**General wellbeing:** The Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS) was used to assess mental wellbeing including eudaimonic and hedonic aspects of wellbeing (22). The 14-item scale asks participants to indicate how often, over the past two weeks, from 0 (*none of the time*) to 5 (*all of the time*) they have experienced different thoughts and feelings (e.g., “I’ve been feeling useful.”).

**Resilience:** was captured using the Brief Resilience Scale (BRS), which measures someone’s interpretations of their ability to deal with and bounce back from stress or adversity (23). Participants answered 6 questions on a 1 (Strongly disagree) to 5 (Strongly Agree) scale (e.g., I tend to bounce back quickly after hard times).

**Meaning:** The Meaning in Life Questionnaire (MLQ; (24)) consists of 10 items in two subscales that measure the presence and the search for meaning in life. Items are rated on a 7-point Likert scale ranging from 1 (*Absolutely untrue*) to 7 (*Absolutely true*). A higher mean score on each subscale reflects higher levels of the presence and the search for meaning in life, respectively.

**Optimism:** was measured using the Revised Life Orientation Test (LOT-R; (25)). The LOT-R is a 10-item scale designed to assess individual differences in generalised optimism versus pessimism. The scale responses range from 0 (Strongly disagree) to 4 (Strongly agree).

### Negative mental health outcomes

**Psychological Distress:** was captured using the Kessler-6. (26), which measures *non-specific* symptoms of depression and anxiety. The 10 items are rated on a five-point Likert scale (ranging from “none of the time” to “all of the time”).

**Depression:** The 9-item Patient Health Questionnaire-9 (PHQ-9) (27) was used to assess specific symptoms of depression. Participants respond on a 4-point Likert scale from 0 (*not at all*) to 3 (*nearly every day*) how often they have experienced depressive symptoms (e.g., “feeling tired or having little energy” or “feeling down, depressed, or hopeless”).

**Anxiety:** The 7-item General Anxiety Disorder-7 (GAD-7) (28) was used to assess specific symptoms of anxiety. Participants respond on a 4-point Likert scale from 0 (*not at all*) to 3 (*nearly every day*) how often they have experienced symptoms of anxiety (e.g., “feeling nervous, anxious or on edge” or “trouble relaxing”)

**Loneliness:** Loneliness was measured using an adapted version of the Three-Item Loneliness Scale which is a short form of the Revised UCLA loneliness scale (29), measuring feeling isolated, disconnected, and lacking social connectedness. Participants responded on a 5-point scale from 1 (Never) to 5 (All of the time).

### Other outcomes

We asked a number of additional questions on different moments during the 12-month period.

- **Questions on help-seeking:** various individual items will be used to capture mental health help-seeking behaviour and use of services at baseline.
- **DRA specific questions:** we asked a number of questions related to participant’s experience of DRA and the impact it has had on their lives and wellbeing.

## Pulse measure during deployment

To assess day-to-day wellbeing during deployments, singular items for each of the above-mentioned mental health outcomes, with response scales adjusted to focus on that specific day (rather than for instance the past week). The ‘best-loading’ item, i.e. the item that explains most variance of the total score, based on past datasets that we have on each of the mental health outcomes. Each item was checked for face validity to ensure the item adequately captures the construct.

## Analysis methods

This report tries to strike a balance between scientific accuracy and readability for a wide audience. To achieve this, the report *does not* provide detailed statistical information, but rather provides interpretations of the data to indicate whether the analyses we conducted found scientifically meaningful results or not. The exact analyses and statistical output that underpins the report will be made available in a separate appendix for those interested, as well as a scientific article to be published in the future.

When the report mentions *significant* changes or differences, it means that we used a statistical method to assess if a meaningful difference is likely to exist. Specifically we use a combination of significance testing together with effect sizes. Only when statistical criteria for both were met, would we report that a difference existed.

We used a combination of different techniques to determine whether we could observe meaningful changes over time. We:

- conducted a complete analysis using a multivariate analysis of covariance (MANCOVA), to interrogate the responses of participants that provided data for each of the time-points.
- We also ran multi-level models, to firstly account for within-person variances and to be able to use data from participants who dropped out along the way.
- We finally modelled what the data would look like if drop-out did not occur, by using multiple imputation, to further validate our results.

The combination of these different analyses techniques to form judgement on the results (rather than choosing one over the other) was deemed necessary to counter a number of challenges with the data that made the use of each of the individual approaches difficult, including for example high levels of drop-out throughout the trial.

For any differences at baseline we use less complex analyses, mostly relying on a combination of t-tests, analyses of variance (ANOVA's).

The qualitative interviews were generally 1 hour long, took place online using teleconferencing

software and were semi-structured. The findings were summarised via deductive thematic analysis, following pre-determined themes of interest, all the while facilitating inductive elements as individuals were allowed to introduce new themes and topics in the interviews (30).



## Chapter 3. Developing the DRA Wellbeing Model – a literature review to identify potential active mechanisms that drive mental health and wellbeing in DRA volunteers

### A brief note to start the chapter.

This chapter was originally created for an interim project report, which was used to brief the Royal Commission into Defence and Veteran Suicide. For this final report we aimed to leave the review as close as possible to the review presented to the commission, with some added reference to first responders and civilians at certain points. It therefore may read more veteran-centric compared to other chapters. What is important to note is that the underlying theoretical rationale for the wellbeing model that is presented at the end of the chapter universally applies to DRA, regardless of veteran-status.

The literature on risk and protective factors for the mental health of transitioning defence force personnel and veterans is extensive and is covered in-depth within a number of detailed reports dedicated to the Australian veteran setting, including the interim report of the Royal Commission into Defence and Veteran Suicide (2) and others (4). The below literature review aims to synthesise insights from Australian and international literature on mental health and suicide in the armed forces, and to bring this together with the most recent developments from within general literature on mental health, suicide and wellbeing. Most notably it integrates the rapidly advancing developments within generic mental health literature on strength-based and wellbeing oriented approaches, which despite being highlighted as a key feature of future reform for veteran mental health and suicide(2, 4), is relatively absent within its research. This focus on leveraging strengths *and* working on deficits is particularly important when highlighting the mental health benefits of an organisation such as DRA, as will become clear within the sections below. The result is a multi-faceted argumentation and subsequent model for the potential benefits that DRA can have on veterans, their mental health and suicide risk, the way they seek help, and the wider utility they have for society.

### The complexity of mental health, wellbeing and suicide

Research on wellbeing, mental health and suicide is becoming increasingly sophisticated, empirically demonstrating that the way we feel on a day-to-day basis is the result of a highly complex interplay of variables from within and around an individual(31). This trend towards embracing complexity is occurring in various separate streams in mental health research, highlighting the importance of viewing mental health and its drivers in all its complexity if 1) we wish to better our understanding of what causes poor mental health and 2) are to come up with effective ways to drive down the prevalence of illness, which has failed to go down globally despite increased investment (32, 33).

For example, research that compares 1) established theories of suicide behaviour used within veteran and generic suicide research (which aim to explain *how* suicide occurs by looking at a relatively small set of causes) and their ability to predict suicide ideation and behaviours, with 2) new machine learning theories of suicide (which by analysing large numbers of complex interrelated variables aim to predict *when* suicide occurs) show vastly superior predictive power for the latter models (34). While both models serve distinct purposes, it highlights how our behaviours are better predicted when we incorporate *more* rather than less complex patterns of interactions. In other words, research cautions against *unnecessarily* simplifying the way we think about mental health in DRA, as by doing so we are likely to fail to 1) capture its volunteers' mental health in sufficient detail and 2) determine just how impactful volunteering may be.

This report as such favours embracing more complexity (35), an approach which is validated by the rich findings within its underpinning data (see for chapter 4 to 6 detailing the characteristics of DRA members and their motives for joining the organisation). A principal way to do this is by accepting an expanded view on mental *health* (36, 37), so that it better represents scientific evidence

and lived experience within and outside the military setting, and by doing so making it fall in line with calls for more strength-based (wellness-oriented) approaches to tackling the burden of poor mental health and suicide for veterans (2).

## Our mental health is more than (not) having symptoms of illness

Our mental health should be seen as a continuously changing outcome that results from an interplay of a range of experiences, feelings and behaviours. For ease of understanding, these experiences, feelings and behaviours generally fall into two types of states:

- states of pathology generally marked by disorder in a person's behaviour or thinking (38).
- mental wellbeing is a state where we view ourselves and our life positively. It's a deeply personal experience that can involve meaningful connection with others, having a sense of purpose, and feeling optimistic (16).

Contemporary research indicates that these states do not simply operate on extremes of one another. They negatively affect one another, but the symptoms (characteristics) of pathology are not the opposite of those that make up wellbeing (39). You *can* experience certain aspects of wellbeing (a sense of purpose, positive relationships, optimism, autonomy, self-development etc) with or without the presence of diagnosable illness (e.g. PTSD, anxiety). Put differently, modern views on mental health do not endorse the view that people with, for example PTSD, live their lives without experiencing aspects of wellbeing until they are completely symptom-free (40). Simply comparing some selected symptoms in the table to the right should help make that obvious.

What research shows is that experiencing states of wellbeing is 1) protective of developing illness (41, 42) and 2) can help people in recovery of that illness in the future (43). What this tangibly means is that we should look beyond just investigating *popular* outcomes in mental health research on veterans, first responders and the general public (e.g. PTSD (44)) and that targeting states of wellbeing specifically, not just working on drivers of illness, can be a fruitful mechanism to protect people from developing more serious illness and subsequent behaviours (i.e. suicide behaviours) and aid in its recovery (37, 45).

Table 1

Contrasting core symptoms of PTSD and symptoms of wellbeing.

PTSD: A long-lasting mental health condition that's triggered by experiencing/witnessing a traumatic event	Wellbeing: We view ourselves and our life positively, which is influenced by positive evaluations of (among others)
<ul style="list-style-type: none"> <li>• Self-destructive behaviour, such as drinking too much.</li> <li>• Always being on guard for danger.</li> <li>• Trouble concentrating.</li> <li>• Irritability, angry outbursts or aggression.</li> <li>• Trouble sleeping.</li> </ul>	<ul style="list-style-type: none"> <li>• Meaning</li> <li>• Optimism</li> <li>• Autonomy</li> <li>• Positive relationships</li> <li>• Calmness</li> </ul>

The importance of the above messaging for DRA warrants explicitly stating: it sets the theoretical rationale for why volunteering in DRA can result in mental health benefits via an interplay of connected aspects, which are likely to have an *indirect* effect by promoting wellbeing, which in turn for a subset of people can lay the foundation for combatting illness.

## When and why do mental health problem for veterans occur?

Much of the veteran mental health literature focuses on the transitioning veteran, many of whom transition or reintegrate without major problems, while others display immediate challenges during transition or develop challenges long after they have transitioned (6, 7). What is important is that the nature of transitioning does not get conflated with the exact reasons for onset of the problems themselves. Some veterans may have had (a predisposition for) mental health problems before they joined the armed forces and/or would have started developing problems irrespective of having joined in the first place. For example, for some the mental health problems may be largely driven by biological (e.g. genetic) rather than situational causes (e.g. lack of a supportive social environment) (46). For others, the main situational drivers of problems during transition may not lie within the professional sphere, but rather may be in the personal sphere, which happens to coincide with the (stressors of the) transition period (47).

What this tangibly means is that, while transition presents a genuine moment of risk for the veteran – and opportunity to target their mental health –, it may not be the transition per se that drives mental health problems or even suicide. Similarly, for many DRA volunteers (e.g., Vietnam veterans), transitioning out of the military lies well behind them. While some may continue to struggle with the consequences of the war, others may be struggling with poor wellbeing because of developments in their personal life, irrespective of their service.

A different way to put this is that the benefits that volunteering for DRA can have on someone's mental health can occur beyond and independent of veteran transition periods. While the transition period still represents an ideal window for recruitment, it pays to talk more broadly about the general drivers of poor mental health that DRA can prove to be useful for, irrespective of whether one could see DRA as having utility for dealing with transition and reintegration issues.

## What are core drivers for poor mental health and ultimately suicide

A plethora of models for mental illness and suicidal behaviour exist - both in the veteran specific literature and in the general literature -, which point to specific antecedents and the ways we can go about mitigating them, which thus help provide insights into the potential mechanisms that underpin DRA's Wellbeing Model (48). Take for example, the 'ideation-to-action' models such as the 3ST model (49)<sup>1</sup>. This model - which is based on the interpersonal psychological theory of suicide, stating that suicide ideation is driven by social isolation and feeling a burden to others – indicates that emotional or physical pain combined with isolation and a lack of hope for a good future can start to result in suicide ideation.

This, in highly simplified terms, points to two distinct needs that need to be addressed. Firstly, one needs to deal with emotional or physical *pain*, which generally benefits from therapy, either physical or psychological/psychiatric. While hopelessness and social connection can in part be

addressed via therapy, e.g. when it is driven by cognitive distortions, it generally is driven by indicators that are associated with wellbeing, and as such benefit from approaches outside the therapeutic sphere.

Applying this thinking to veterans, therapy can be used to deal with service-related mental health disorders or physical injuries, while at the same time – and to protect against hopelessness - reintegration difficulties need to be addressed by targeted services (50). There is for example the need to safeguard the social determinants of health, ranging from 1) providing education, opportunities to connect to 2) ensuring secure housing, a serious problem for some veterans with more significant health problems (8). Although this can be done by dedicated services, e.g. those provided by the Department of Veteran Affairs (DVA), DRA can play a role in contributing positively to a range of wellbeing related areas, including:

- **Employment and continuing education:** by providing professional development opportunities and training, as well as using volunteering as a recruitment strategy for paid employment.
- **Applying military skills to civilian life:** disaster relief efforts tap into unique skills that veterans develop, but cannot always meaningfully apply in civilian life.
- **Interacting with friends and family:** by building a support network and encouraging deployments together with family members.

## Towards a focus on personal recovery and capacity building

While many benefit from therapy, everyone benefits from working on areas related to their wellbeing, particularly when we keep in mind that this protects against the development of illness in the first place.

This creates a new narrative when we consider mental health and the way they feel on a day-to-day basis (37) (51). We shift away from seeing mental health as being synonymous with aiming to get rid of symptoms of illness and seeking help only when one is seriously ill. Rather we adopt a view that is more akin to the way we see our physical

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<sup>1</sup> Interpersonal models tend to outperform other classes of models including hopelessness, biological and biosocial theories –

health (36): we get specialised help when we develop symptoms of illness (e.g. cancer, heart problems), while at the same time we work on keeping our bodies healthy (e.g. by focusing on physical health, nutrition, sleep and good personal circumstances to name a few).

As such we shift away from an exclusive focus on symptom reduction, which is called functional recovery. Rather we focus on being able to live a joyful and meaningful life and feel part of a community, with or without mental health problems, referred to as personal recovery (40). This requires the need for a focus on building capacity and tapping into strengths, drawing parallels with literature in areas such as positive psychology (52). It allows us to reframe our mental health as an outcome that can be harnessed outside the clinical sphere by focusing on tangible resources in all our lives. A visual that summarises notable drivers and resources to our wellbeing is provided in figure 3.

## The case for indirect service offerings

Shifting the focus to areas related to wellbeing presents a major advantage for services like DRA (53): we can work on improving someone's mental health and reducing their risk of suicide in an indirect and non-threatening way. While most people think of therapy and psychiatrists as the first thing that comes to mind for treating mental health, in essence one can rely on much less direct methods in an informal atmosphere. This can counter well-documented barriers to seeking help via formal channels (54, 55). For example, while qualitative research points to stigma being a

potential influence for not seeking help (56), quantitative research is less clear with researchers failing to find a definitive relationship between perceived stigma and help-seeking intentions & behaviours (57) which may be explained as follows: "individuals who are disinclined to seek help are compelled when reaching a crisis point or enabled to seek help by positive facilitators of help-seeking, such as supportive family/friends/unit, to overcome stigma".

What this points to is that, in the right environment and under the right conditions, even people with high levels of negative beliefs towards working on their health, could be convinced to seek or accept help. This makes DRA a potential gateway for future engagement with traditional services, and makes it an interesting vehicle to facilitate informal support itself (58). It is much like peer support groups, which have been used to facilitate better transitions for veterans, but without the overt attention on the need to recover. Rather, by centring the main focus of the mission around helping community and building personal capacity, peer support can be provided in a much less threatening manner (59).

Similarly, revolving the main purpose of the organisation around a social good, whose main activity involves getting people active, makes it particularly interesting for people who do not think they need help or are resistant to the notion of talk therapy, e.g. males who sometimes prefer options that are activity-driven (60). It facilitates positive effects without the organisation revolving around mental health, thereby benefitting the person even if they are not there to gain benefits on their mental health.



Figure 8. Main antecedents to our wellbeing (33), of which various can be related to the benefits that volunteering for DRA can bring to veteran mental health.

## Bringing it all together: DRA's Wellbeing Model

The above presented literature review and its argumentation sets the scene for DRA's Wellbeing Model. What it importantly does is provide the rationale for DRA being relevant for:

- people (veteran and non-veteran) who are currently struggling, encouraging recovery by promoting positive antecedents to our mental health; and
- those that are not struggling, by providing a protective effect against future adversity.

The below model aims to visualise the way DRA exerts its positive effects on mental health. It can be summarised in a couple of short paragraphs.

Getting volunteers to do something they like and/or find important to do, where they feel useful and/or appreciated, in their own eyes and/or those of others. This taps into a sense of enjoyment, purpose, (self-)worth, recognition and belonging.

Engaging in the act of disaster relief, combined with an accepting community that can positively promote positive aspects of a veteran's identity, thereby by itself can be healing. It can present an important informal complementary lever to combat suicide risk in the future, while at the same time providing a service that is essential to the nation's wellbeing.

Informal supportive conversations and a supportive community that instil trust in volunteers who sometimes have not received much confidence for a while, creates an important motivational environment for self-improvement.

At the same time it offers opportunities to help identify at-risk individuals during its engagement, offering follow-up opportunities and referrals where needed. Its staff – particularly its leaders and the wellbeing team – can help identify struggling people and refer them to more formal mental health services.

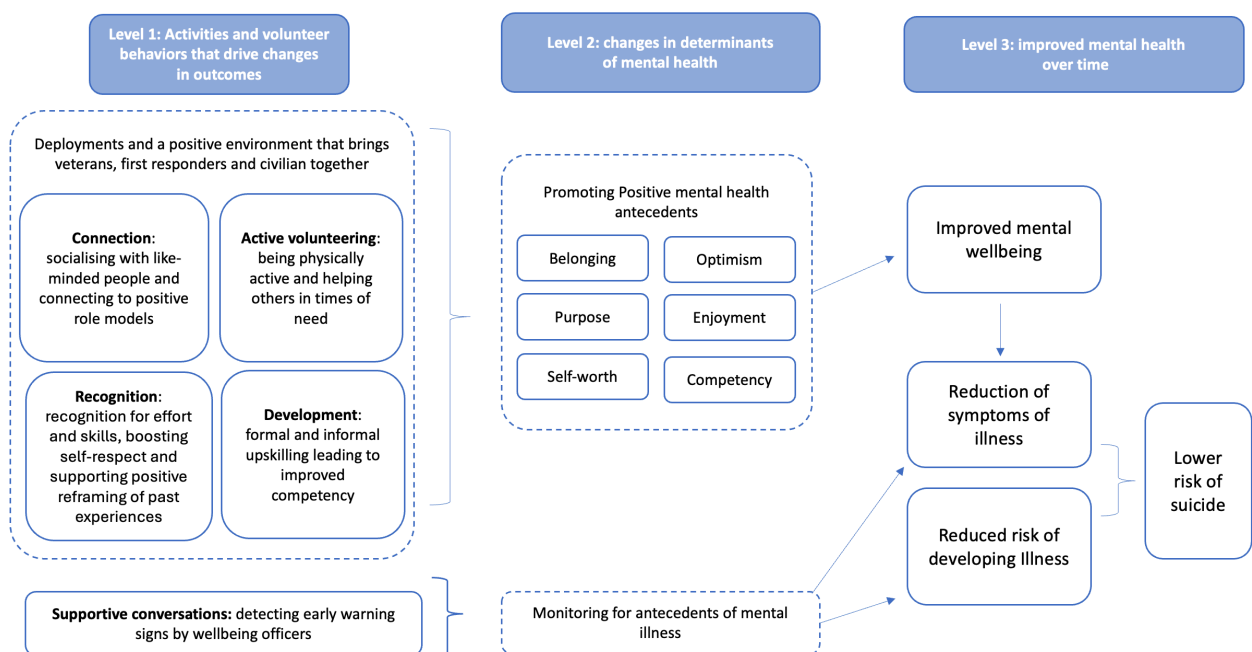


Figure 9. DRA Wellbeing Model (also presented in figure 1 of the executive summary) that proposes the mechanisms through which DRA promoted antecedents of wellbeing, which together with monitoring for more serious symptoms can help promote healing and prevent more serious problems from occurring.





## Chapter 4. Using qualitative interviews to validate the main components of the wellbeing model.

### Part 1: background to the interview participants, their mental health profile and their motives for joining DRA

#### Why were we covering this?

It is important to understand the background to the interviewees as this will shape the interpretation of the answers they give. The motives to join DRA varied from per person we spoke to, indicating that the potential mechanisms through which DRA can exert a positive influence can differ per volunteer. Mental health experiences and experiences with help-seeking also differ per volunteer, which in turn influences what exact improvements we can expect to see during our study.

#### Background to participants and their reason for joining DRA

We conducted in-depth interviews with 33 volunteers to develop a detailed understanding of the experiences and motivations of DRA volunteers. We recruited a range of different interviewees, ranging from those that were highly engaged, to people who never ended up deploying and to critical friends, or in other words, the people who may be engaged but have been known to be able to provide constructive criticism to the organisation. We included veterans, first responders and civilians, and aimed to achieve a balance in terms of age and gender composition. Interviewees also represented a number of different DRT's, including NSW, QLD, SA, TAS, VIC and WA.

Many of the interviewees we spoke to joined after the recent and highly publicised natural disasters such as the black summer bush fires in 2020 and the floods following the years after. Volunteers wanted to join DRA because they heard about the negative impact of those disasters on the news -

via friends/family but also because they experienced the disasters directly themselves – and wanted to help.

*“I kind of kept in contact with a few of the DRA guys [who came to my town after the fires] and then followed the website and everything. And then I thought \*\*\*\* let's join up. I like this former military and emergency services based group.”*

Another significant proportion of participants seemed to have been recruited into DRA by people they knew and trusted, either directly or via ‘role-models’ within community. They for example followed someone’s social media story and connected to their familiar story. They saw something they could relate to and decided to give it a go. For these volunteers, it was often the combination of the sense of familiarity with seeing the ‘trusted person’ do the activities in DRA that drove them to sign up.

*“I tried everything else [to fix my mental health] and it just didn't work, but my mate joined DRA and I went off his recommendation. As soldiers I guess we trust other soldiers more than we do trust advertising. So if someone recommends it, another soldier or something, you go OK. It must be alright.”*

This important role of peer influence to join up goes both ways, with volunteers who had a positive experience, then going on to invite mates they felt could benefit:

*“Yeah [invited him because] I think he has struggled with his own mental health for quite some time and being in a group of similarly minded people will help him. And it will also possibly help him umm reintegrate into the community. Yeah, because he's had an even harder trot than what I had”.*

Interviewees who were veterans or family of military staff were drawn to the familiarity between DRA and the military, in terms of being veteran-led, the culture they expected to find and the activities they were meant to be doing.

*“[I joined] because it was like I said, veteran led and then yeah, just looking at it online, just searching for it and just seeing what they did. I definitely felt within*

*an instant, almost like oh, like I've been looking for this for, you know, forever."*

Veterans talked about trying to find things to do when they left the military -both unemployed and employed veterans - which made them tap into some of the aspects of military that they missed and positively related to.

*"And DRA was just such a nice fit for the military camaraderie, you know, the whole structure that I'm used to. But then also the good that it did and the needs that it met for people."*

When asked about these 'deeper' motivations such as helping others in need, many indicated an innate need to help the community. They could not indicate "why" this was the case, it just happened. Some are or were always active volunteers trying to help their local communities. This for example was the case for some of the first responders we spoke to who either were drawn to that role because they always wanted to help communities, with some also previously or currently volunteering for other first responder organisations like State Emergency Services (SES)

*"So we are actually all volunteers with the state emergency service. And so, yeah, [one of us] deployed and had a fantastic time and said that DRA did really work closely with the community, made a massive difference during the recovery. And then [we] also signed up in the next couple of weeks and have deployed a couple of times since... It's something that we were all looking for."*

## Background to the mental health of interviewees

### Mental health journeys prior to joining DRA

Interviewees were very open about their personal mental health, both in the past and present day. A noticeable two-way split became apparent.

1. There were volunteers who had a significant history with mental health problems and were on a journey to healing. These participants were often veterans who were affected by their service, often (but not always) driven by the consequences of accidents or physical injuries during service.
2. There were participants who felt well and were simply ready to give something back to community. They did not have a significant history of mental health problems. For some

veteran responders who belonged to this category, they were individuals who did not want to be seen as affected or 'broken' by their service and who generally had largely positive reflections on their own period in the defence force.

The recovering veterans who were medically discharged because of training or combat incidents generally spoke about experiencing the most significant mental health consequences. These interviewees spoke about having been diagnosed with or experiencing PTSD, often with comorbidities, generally being depressive or affective disorders, and or problems related to alcohol and substance use.

*"Yeah, my problems were with depression, PTSD and alcohol and substance abuse. All the alcohol and substance abuse was like, dramatic. Back then it was pretty much, yeah, like every day. It really massively impacted me"*

Volunteers who were discharged because of medical reasons often spoke about the physical toll that the injury took, and the long recovery period they went through after leaving the military. When asked to reflect about the long-term consequences, participants reflected on the fact that the mental health consequences often outlived the physical health problems, as for example noted by this volunteer:

*"Eventually the injuries caught up with me and the PTSD. Yeah, the physical [caused more problems] to start with, but the mental basically outlasted the physical injuries tenfold, unfortunately."*

Volunteers with a military background that did not personally experience significant mental health problems tended to indicate they had a generally good experience in the military, except for standard workplace incidents here and there. Some interviewees actively indicated that their transition wasn't a problem at all, particularly when they were quite happy to be ending their period in the military.

*"My transition back into the work, back into university life was made pretty easy, yeah. Well, it's just that I had a lot of. Yeah, I got a lot of financial support. So I wasn't struggling."*

However, the volunteers who coped well with military life were quick to note the negative impact that service had on some of their colleagues. They

were aware of the serious consequences that military service could have, particularly for friends and colleagues who were in accidents or had to go to active conflict zones.

The consequences of problematic mental health significantly affected the behaviour, ability to function and conduct of some of the recovering volunteers. Some have had to go into inpatient treatment on several occasions throughout their life, including some volunteers that we interviewed while they just came back from or were about to go back into inpatient care.

A theme that came through related to the contrast in cultural differences between the defence force and the civilian world. Behaviour that was encouraged or tolerated in the defence force led to problems for volunteers after transition, mainly related to violence, general conduct in social circumstances and the use of alcohol and substances. While the people who discussed these issues indicated they were able to get on top of it after a while, claiming they didn't engage in these behaviours anymore, even lower grade manifestations of this behaviour is problematic and may at times represent a potential cultural risk factor for DRA that should be monitored.

*"I basically hid away for about five or six years. Basically all I did was take the kids to school in the morning, come home and sleep, wake up till 2:30, pick the kids up again, get them dinner, go back to sleep. But I think I needed that back then because I was angry. Like if I did go out and I ran into confrontation or whatever, it resulted in violence."*

While most of the interviewees with more serious mental health history were veterans, past and current mental health problems also applied to non-veterans, as this first responder indicated.

*"I think there's a there's a handful of diagnosis that have been thrown around from GP to GP...PTSD, anxiety, Depression."*

#### Help-seeking behaviour of the volunteers

Somewhat surprising, most of the members we spoke to did not have a problem with using professional services, which aligns with the findings from the quarterly surveys. Those that had not sought help indicated they did not do so (early enough) because they did not realise they had

problems that warranted seeking professional help.

*"I never thought I had a problem. I was in the army with [a friend] and he was an advocate and he told me to put a claim in and this is about 1997 and then it went from there and then [they] sent me to their own doctor and it was a psychiatrist that he told me I had PTSD."*

For some however, there were trust issues when it came to mental health service provision, both in terms of not knowing if they could trust therapists, but also in terms of not trusting that the process of therapy in general would help.

*"The only resistance is, I've had past psych's [in the army]. And you know, I remember going there and like being open once, and all of a sudden, he was like, I have to report this to your chain command and all of a sudden, I'm just like oh \*\*\*\*, I can't even tell you anything."*

Less resistance seemed to exist to the notion of taking medications, as this was normalised within the defence force.

*"[In the military] you'll get a task, and you go and do it, and then when I did think, OK, I need professional help, it was that same mentality of, OK, I'm gonna do this 100% and I'm gonna get better. So I'll go to a psychiatrist. I'll take their tablets and I'll be better. And when that didn't happen, then you get disheartened and say this is \*\*\*\*. And you go back into that [negative] spiral. What they don't explain in the military or when you get out is that it's a holistic approach. So it's not just medicine, it's physical exercise. It's all these things. Where all you hear is when we're in the military, you go the doctor, he gives you tablet so you get better. And that's what you're expecting with your head as well."*

Out of the participants that did seek help, some were able to get on top of their challenges as the help they received made a real difference. They often had to try different methods before they made real strides, which came with a realisation that mental health treatment should be seen as a journey, rather than something you can treat in one go. Effective treatment often was attributed to people finding a good psychologist or psychiatrist that they trusted and had a good relationship with.

*"So I've been seeing a psychiatrist for, many years now. Uh, and it's kind of helped. And then at the*

*same time I've been seeing psychologists like, on and off. And yeah, engaged in like [Transcranial Magnetic Stimulation] as well. Yeah, actually yeah, I rate it."*

Others saw limitations within the format of mainstream service delivery, particularly the general format of therapy in which reflection and conversation was the main form of trying to help the veteran. When volunteers spoke about the utility of this difference, they tended to refer to it benefitting males specifically.

*"if you look at the way men do things, it's often they do things together, but not, you know [just talk to each other]. Like they'll go and play golf and they'll talk on the golf course."*

## Part 2. The nature of DRA as the breeding ground for healing and wellbeing.

### Why are we covering this?

We wanted to explore the general aspects of volunteering for DRA that drew DRA volunteers to become members. These are not the unique activities and volunteer behaviours that lead to improved wellbeing (they are covered in part 3), but rather are the reasons for drawing volunteers into the organisation.

The important impact of deployments: getting benefits from giving back

The profound impact that going on deployments had on the lives of the interviewees could be noted, sometimes making participants visibly emotional. A key theme that came through revolved around the notion of providing hope for people during their darkest hours.

*"[When we go into a property] we do a bit of work and then they see that it's possible that they can get back over time. They're in that sort of depressive state where they're just sitting back, and they don't know where to start. And it all just seems too much for them. So to get a couple little projects started and finished with their assistance and involving them, that just sort of motivates them that it is possible we can sort of get back on our feet sort of thing."*

In this, an interesting parallel lies. Providing a notion of hope, by starting small and letting people see a path to growth, is analogous for the value proposition that DRA offers for a subset of members, as comes through in the interviews. Many volunteers independently talked about the transformative effect of giving people a place to start, so they could see light at the end of the tunnel.

*"the first job we used to do was clean what the residents could see outside their kitchen window, because when they get up in the morning, they go turn the kettle on. They look outside while they're waiting for the kettle, and if it's looking \*\*\*\* out there, their day gets off to a bad start. If you do a little bit of cleaning up and it looks a little bit better, it's a little bit of a better start."*

This impact was generally connected to being on 'strike teams' that directly go into the communities, with most members saying that these experiences were the most impactful on their own wellbeing.

*"[On a strike team] It's more rewarding. Yeah, using your body more and you actually have the contact with the homeowners and you're there, you know, from start to finish. So you're able to see what they're like when you first walk up, and then once you've helped them for, you know, half a day or a day. How much they've changed and you've improved their wellbeing."*

The impact goes beyond simply helping people fix their properties. Volunteers could also see how their personal interactions provided an opportunity for emotional support to people affected by disaster.

*"This elderly farmer, all he wanted was some fence post put back in so he could get his cattle in and whilst a few of us were out there doing the heavy lifting, our strike team leader was up at the house, having a cup of tea with him and having a deep and meaningful and he absolutely appreciated it."*

Some volunteers spoke about the connection that DRA had with the community members. As the organisation is not 1) government or 2) faith-based, it meant that communities seemed less hesitant to interact with them. Volunteers felt that in general, having DRA be seen as a veteran-led organisation, was a good thing in Australia, as people generally respect veterans, which

translated in them feeling valued as a part of society as well.

*"I'm impressed with the goodwill that [the community] attaches to the brand. SES don't have that goodwill as much as DRA do. So it makes it easy when you rock up to a job and when they see that you are DRA, they say oh come in. When we are on our deployments we become very much a part of that Community you know. That feels good."*

What was interesting was that some people realised volunteering made them feel good, which made them experience a low-level guilt or shame.

*"In fact, I felt a bit guilty sometimes because I got such a sense of, you know, achievement and a sense of, you know, good from it, that I felt guilty because I was out there to give."*

While many interviewees had a sense of reluctance or hesitation when asked about the benefits they received, when pressed most could clearly see the benefits that volunteering for DRA brings them. They recognised the impact that volunteering had on their wellbeing and ultimately were ok with experiencing this benefit knowing they did good work.

*"You know, as I said, I always feel really good after being on a DRA deployment and that that's why I say to others, yeah, I'll get more out of it than I've really put into it."*

The benefits of an environment that brings veterans together with first responders and civilians.

All veterans we spoke to generally had a positive opinion about the recruitment of non-veterans into DRA. The most important part interviewees spoke about was a shared purpose and feeling like everyone is on board with the wider DRA culture.

*"I don't feel this need to be drawn to someone just because they're a veteran. It's more who they are, what they do and what their beliefs are. Whether they work in a way that I like, in that kind of thing. but having said that, I love the military type, structure and organisation and things like that."*

Interviewees were very aware that DRA has a specific culture, which is not a culture that is suited to everyone.

*"[Volunteers] need to try to kind of embrace some of the good parts of the military culture [in DRA] which does come with a bit of a blokey and non PC-Ness to us".*

Some were worried that bringing in more civilians (not so much first responders) could potentially erode the positive aspects of the culture. Others preferred to find parallels with non-veterans, focusing on similarities rather than differences.

*"I'll talk about [my experiences with] service and it's all relevant and similar to the emergency service guys. Honestly Ambos and furies, they, they have similar stories. I can bounce off each them just as well as how I can bounce off the army and Air Force guys."*

One volunteer affirmed just how important the mix with civilians was from a re-integration perspective. It facilitates a softer entry into the civilian world as the majority of DRA volunteers are veterans, with a few open minded civilians around them. Volunteers reported this unique combination results in a group in people who are open to hearing the experiences of veterans, that they often feel they cannot share outside any services friends or family they may know.

*It is mainly veterans and a few civilians of different places. You know, they [veterans] can come with all their quirks and all their things and these impossible stories that they can't really talk about. But you can at DRA. Like some of the stories they talk about, things they've done and they're still accepted. That these civilians can sit along next to them, listen to them and still just treat them exactly the same as they treat others. You know, I think that is a really good experience as well.*

Ability to deploy with family and loved ones

An interesting avenue that DRA offers is the ability to deploy with family together. Although this was not done by most interviewees, those that did deploy together with family, noted that it was a positive experience.

*"My sister lives [interstate], so it's a good way for us to stay connected and to catch up with each other and you know, sort of do what we both love doing and that's, you know, helping the community."*

By providing the opportunity to deploy together, volunteers can develop new insights into what

family members are going through. This helps civilians with no background in the military develop a better understanding of what their family member is going through, while at the same time reaping the mental health rewards they themselves get from volunteering.

*"I got to see my son in a different light. Seeing him in action during a deployment filled me with pride."*

### Part 3. The concrete benefits of the core activities and behaviours that come with volunteering for DRA

#### Why are we covering this?

The below sections outline the impact of the five specific activities and behaviours volunteers experience at DRA, captured under level 1 within the DRA Wellbeing Model.

#### Active volunteering: goal-directed physical nature of the work

Volunteers indicated that the goal directed nature of the volunteering was attractive to them. It meant that they were physically active and out and about. They were outdoors and connected to nature. Some even said that they specifically chose DRA because it was volunteering that involved some physicality.

*"It also ticks the boxes in that it was a physical thing that you're out there doing something physical, not just, and I don't mean this to be derogatory, but I just didn't wanna pour cups of tea for old people. I wanted to be out there doing something physical because I'm fit and healthy."*

The fact that the work is activity driven, where people rallied around a common purpose by being active was attractive to many. Volunteers realised it 'activated' them, rather than sometimes staying in personal circumstances that weren't always good or overly stimulating for their mental health.

*"I think especially at my age and you know, being single, living alone, you can drift into depression and then alcohol abuse and whatever you know. So I think the good thing about DRA is, is it gives me a purpose, yeah. DRA have got me out of my depression and*

*anxiety to a degree... The first I went down [to a new deployment] just after [I finished treatment for a physical health condition], I still felt pretty down because of it and by the end of it, I was feeling really on top of the world."*

#### Connection: a culture of comradery, acceptance and giving people confidence

Irrespective of whether volunteers struggled with mental health or not, the comradery within DRA was a major drawcard for people. DRA allowed people to make strong friendships, with personal relationships being a big driver for any wellbeing impacts. A major positive is the fact that DRA allows people who want to deploy together to do so. This lowers the threshold for many to engage as they get to volunteer with people they like.

*"It seems like a small thing, but it's actually a big thing, because if you're going away with people that you know and I know others do it with you know, people they've met on other operations, it's a way to stay connected to people."*

A core theme that stood out was the culture of acceptance and trust as part of DRA. While there are definite areas of potential challenges - see the section on "areas to monitor and investigate" below - those who said they experienced the biggest mental health benefits almost all made a reference to the importance of the accepting culture. A common reflection interviewees made revolved around feeling like they could be themselves. For some this was a feeling they hadn't experienced for a while

*"You can be yourself in front of them. So our same sense of humour and mucking around and work ethic. If I go out with my wife to see her friends, I have to very much watch what I say and stuff like that."*

The importance of this cannot be glanced over for the most vulnerable, for those with low self-worth. Entering a culture where people put faith in someone irrespective of where they have come from can have great healing properties for those people.

*"They gave the confidence in [taking up a leadership role] in like my first ever deployment. it was a bit uncomfortable, just like jumping into the deep end. Definitely without the support [of leadership] I would not have thought about it... it made me find my worth again. Getting that confidence up. So yeah, it's like it*

*was a big phase shift back into a positive, yeah, positive person."*

At the same time, this positive culture of acceptance benefits even those who do not have issues with mental illness. Positive relationships are a cornerstone to mental wellbeing and act as a protective buffer against more serious issues. Positive relationships also make any activity more fun, ensuring that volunteers continue to come back to DRA.

DRA leadership has played an enormously positive role in developing this culture of acceptance, which needs to be commended. Interviewees speak very highly of leadership and the way they go about engaging their volunteers.

*"Yeah, they don't talk down to you. They involve you in decisions...they take everybody's opinion into account 1st and then make the decision, so it's quite easy to own the decision even if you sometimes are a bit sceptical".*

Throughout the interviews – and therefore mentioned throughout this chapter - it became clear that DRA offers a positive environment for males who may be struggling with their mental health. This was mentioned by a multitude of interviewees, with most focusing their answers on male veterans. Interviewees spoke about the positive impact the volunteering experience had for themselves, which they were eager to pass on to others:

*"I know if I don't keep volunteering and don't keep going to that, I won't be in a good headspace. It's my medication basically... So I try to tell younger guys to see volunteering as their medication."*

They spoke about the influence that modelling by males with a veteran background had on them. By seeing others be open about their own experience with trauma, they felt they had the opportunity to open up themselves in an informal atmosphere, which sometimes felt like a better fit compared to more traditional forms of opening up (e.g. therapy).

Similarly, interviewees spoke about the support they provided themselves, when they knew people needed a bit of help:

*"We're supportive... one of the deployments I was on, one of the young guys ... you know, he had a drink problem, so I would be with him in the evenings and help him not to drink."*

#### *Recognition: experiences that boost self-respect and support positive reframing of past experiences*

DRA provided a clear restorative effect for some volunteers. Allowing people to reframe their own look on life.

*"It gives you such perspective of the human condition. To see it and smell it and experience it and feel it on the ground with people who are also so willing to share their experiences. Umm it just changes your perspective on things and you I think just recalibrate your view of the world to be a more positive one where you are."*

This restorative effect was most profound for the veterans we spoke to, particularly those who had a more problematic relationship with their military past, both older and younger volunteers. Some volunteers had serious self-worth issues, which started when they transitioned. Older volunteers, particularly those who served before 2000 talked about feeling the need to hide their military identity.

*"I think they experience a level of... not quite moral injury, but moral bruising where there is an aspect of shame in their service."*

*"Well, we're talking about 1971 and it was pretty hostile environment in, in, in Australia at that time because they all opposed to the war, and I think that's what a lot of lot of Vietnam Veterans would tell you. It mostly worse than the war. And so, yeah, a lot of us just kept it to ourselves for a long time."*

While for some embracing a sense of pride in their military past was a longer term process, others directly talked about how volunteering for DRA gave them a positive sense of connection back to their military past.

*"It took a while, but I finally started wearing my uniform with pride again"*



The appreciation by community when volunteers would come and help, aided in this revived sense of identity. Volunteers felt they were appreciated as veterans, not just as people who came and helped.

*"[After my deployment] I was exhausted and on painkillers. I went home and cried. It was the first time I felt I fitted in again."*

#### Personal Development: training and credentialling as a foundation for future wellbeing

The most tangible benefit that DRA provides its volunteers is the provision of training (e.g. courses on handling chainsaws, trailers or even flying drones), thereby allowing volunteers to upskill themselves. This not only contributes to a perception of self-development, it also directly makes volunteers more job-ready. While this only applies to subset of more vulnerable volunteers, the impact of getting volunteers to become more job-ready is profound.

*"So I mean, this year that part of my life [gaining employment which he attributes to DRA upskilling] kind of lined up. It was almost like: if I didn't sign up, my life would have gone a different way. But the trajectory you know, hasn't gone sideways. It has pretty much gone up... getting all the skills and experience just from the volunteering and then now I'm working on getting a whole new range of skill sets now that I'm working again. Uh, see, the easiest way I can put it is probably DRA saved my life. that's how I feel for sure."*

This makes some of the formal training and accreditation a pivotal component of contributing to good wellbeing. While this may not lead to immediate effects and as previously stated does not apply to every volunteer, it provides avenues to build an absolute vital determinant of our mental health, i.e. financial security via work.

#### Supportive conversations: Informal opportunities to get volunteers to open up.

Interviewees generally had a lot of good stuff to say about how wellbeing is treated in DRA. For

example, daily reflections on deployments encourages open sharing of joint experiences and can open up a gateway to deeper conversations.

The organisation takes the topic seriously and has built in a number of safeguards to ensure people who need a bit more support are picked up along the way. There are wellbeing check-in phone calls that occur after each deployment and while not everyone is always super keen to take the call, people realise why they are needed.

Volunteers positively talked about the highly open culture to talk about issues in the open. This was different to other veteran organisations where discussing problems in the open was not standard.

*"It's helping those people that have quite bad PTSD to get together and have a chat. It's not frowned upon like in some other places they might go. Whereas in DRA [taking our mental health problems into account] is basically brought up at every single course that we do, like: "if you have PTSD, if it hits a nerve, let us know and we'll reassess."*

Various interviewees also note the role that the wellbeing team plays during deployments, noting that they were very aware that they were around in case someone needed any further assistance.

The strong focus on wellbeing however does bring some tension, where some volunteers expect the service offering to go beyond an informal pathway to help someone's mental health and wellbeing. The role for DRA is not (and should not be) to replace a formal therapeutic environment, which volunteers should continue to be made aware of.

*"I think that the messaging can quite get can get quite muddled as a lot of people think DRA should be doing certain things better in regard to mental health and wellbeing for veterans."*

## Part 4. Areas to monitor and investigate.

### Why are we covering this?

While most of the conversations spoke to positives for DRA, various themes popped up that might present challenges for the wellbeing of some volunteers in certain circumstances.

There are several themes that popped up during the interviews that can affect the impact that volunteering with DRA has on mental health and wellbeing. Although an-depth coverage of these factors is beyond the scope of this report, the following areas deserve a mention:

- The pre- and post-deployment period can add some stress to participants, e.g. those that have families or those who need to travel a lot, which can affect the way people feel as a result of going on deployment.
- The circumstances of the disaster relief effort may impact volunteers, e.g. if they have gone through a similar disaster.
- In some conversations topics in relation to organisational culture were discussed, which may impact member wellbeing, e.g. interactions between military and civilian members, gender equity and the rapid rate of expansion within the organisation.

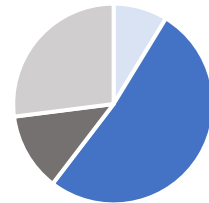
*“[Going on deployment] does put pressure on the families and stuff like that, so they know I'm going away.... It's double edged, but ultimately, they know if I don't keep volunteering and don't keep going to that, I won't be in a good headspace”.*

As mentioned, detailed recommendations on these cultural aspects lie beyond the scope of this report. We will work together with DRA to determine the need for a dedicated scope of work that captures some of these potential challenges, as well as any recommendations based on the results of the interviews, focusing particularly on any areas the interviewees recommended DRA could look into.

## Chapter 5. Participant characteristics and information on recruitment and engagement

### DRA composition

Across the duration of the project, we engaged with hundreds of DRA volunteers. After cleaning the data, a total of 786 unique individuals contributed to the study. Below we provide insight into key characteristics of the study sample, focusing on those characteristics that can be used as potential 'variables' in the analysis.



- Active Military
- Veterans
- Family of veterans
- Civilian only

**Veteran or military status:** 399 participants were veteran (50.8%) with 65 participants being active military (8.3%) and the remainder being civilian (40.9%). This brings the combined group of participants who were ever in the military to 464 participants (59.0%).

### Participant characteristics

**Gender:** 541 (68.8%) identified as male, 237 identified as female (30.2%), with the remainder identifying as another response category (1.0%).

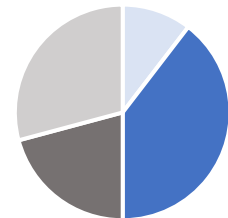


- 18-34
- 35-44
- 45-54
- 55-64

**Age:** The average age was 51.6 (SD = 13.1) with the youngest volunteer being 19 years of age and the oldest being 79 years of age. A breakdown per age bracket can be seen in the figure below.

### First responder:

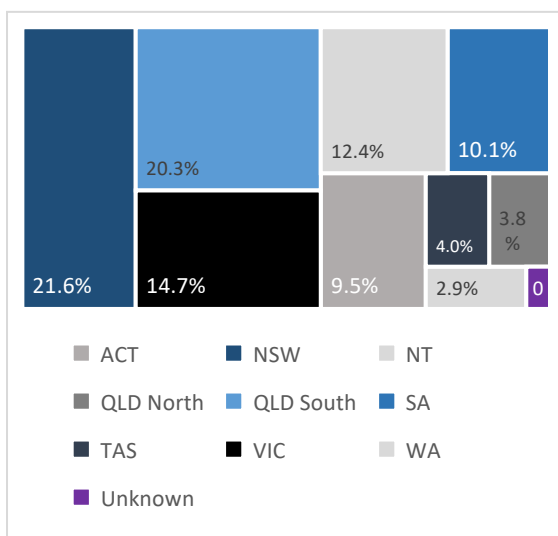
a total of 144 participants (18.3%) were first responders, with another 59 (7.5%) being former first responders. Out of the active first responders, 21 were part of ambulance services, 80 were fire fighters and 43 were police.



- Ambulance
- Police
- Fire fighter
- Previous

**Family of military:** 100 participants were family of someone in the armed forces or a veteran (12.7%). Three of these participants also indicated that they were a veteran or military member themselves.

**DRT:** members from each of the DRT's provided data, with NSW and Queensland being the largest contributors.



## Level of involvement with DRA

The 786 participants are part of a larger population of volunteers. The last DRA contact list we received (which includes anyone ever engaged with DRA, active & inactive) included exactly 3000 volunteers, meaning that 26.2% contributed to the study. It is important to interrogate the level of engagement of the volunteers who responded, as this serves to identify ‘control’ participants, and can also point us to potential variables of interest we would want to include in the analysis.

**Deployment engagement:** the average all-time number of deployments for participants was 3.9 (sd=6.2). Most participants however never deployed (34.2%) with the majority only deploying once or twice (15.1% and 12.2% respectively). This means that we can better use the median (which is 2) to indicate the mid-point of our dataset. The stark difference in activity behaviour between members highlights it as a variable of interest for our analyses.

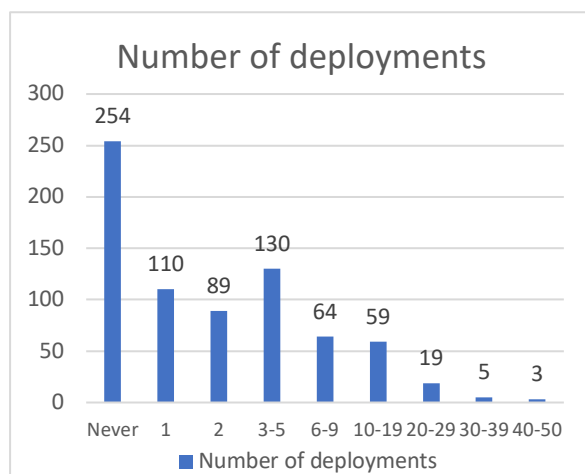


Figure 10. Distribution of number of deployments per participant

### Group 1: The ‘active deployers’

One of the aspects that makes this study slightly unique is that volunteers determine their own involvement in deployments. This means that volunteers deploy randomly throughout the study period, some more than others. We had a total of 189 volunteers who participated in a deployment during the study. We were able to land on a rough estimate of when most deployment activity took place.

Table 2.

Number of deployments completed immediately before and during the study. M denotes months.

Timeframe	Participants	Percentage
3m before baseline	105	14.3%
Bl to 3m	150	20.5%
3m to 6m	144	19.6%
6m to 9m	130	17.7%
10m to 12m.	67	9.1%

Most volunteers (55%) only deployed during one of the measurement periods, with 27% deploying in two periods, 12% in three periods and finally 6% deploying across all four measurement periods. This difference in ‘activity level’ during the study makes this a variable of interest.

### Group 2: The ‘non-deployers’:

One third of the sample (254 members) has never deployed and could thus be seen as a control group. They may be new members who have not had a chance to deploy, but they are also older members, who for one reason or the other simply never deployed, but still feel ‘connected’ to DRA, as they contributed data for at least one time-point. Simply treating data from these members in the vein as ‘active deployers’ would however be misleading, considering many volunteers in the dataset are not *recently* active. This may happen for a variety of reasons (e.g. timing of deployments doesn’t work, their current work/life situation doesn’t facilitate easy deployment, they needed a break from deploying etc). In addition to new members who had not deployed, we considered older members who did not deploy for at least two years to be ‘inactive’. The data from these two groups make up the DRA control group used across the study<sup>2</sup>.

We will contrast the results from the ‘active deployers’ with the ‘non-deployers’ throughout this study. The first group may sometimes be abbreviated as the ‘active’ group and the second group the ‘DRA control’ group. A third group, the ‘population control’ group is used to provide insight into how all DRA volunteers may differ compared people who are not attracted to DRA. A description of this group and how it differs from DRA on demographics is provided in the next section.

<sup>2</sup> We conducted analysis on various outcomes at baseline and over time, showing similar results, validating combining both groups.

## Recruitment and participant engagement throughout the study

Out of the 786 participants with data entered at one stage in the study, 733 participants contributed valid data to at least one of the quarterly measurements. The remaining participants contributed data to the deployment studies only.

### What data could be used?

Not all data from the 733 participants could be used in the study. To create a meaningful difference between the 'active' and 'inactive' group, we needed to exclude the responses from people who were continuously active before the study. After cleaning of the data the response for a

total of 629 participants could be used. Insight into how many timepoints participants contributed to is mentioned here:

- 5 measures: 145 participant
- 4 measures: 74
- 3 measures: 101
- 2 measures: 131
- 1 measure: 178

This clearly shows that the number of people with complete data is affected by drop-out. This is one of the reasons why we 1) use "mixed models" to complement the completer-analysis and 2) add imputation to model what responses would look like without the loss of data.

Overall though, the study has exceeded the reach and engagement targets we set at the beginning of the project, see table below.

Table 3.

Project reach and breakdown of sample.

Reach and engagement KPI	Expected study sample size	Total sample	% of needed sample
170	80 Active male military and veterans	420 Active male military and veterans (92 active military & 328 veterans)	525% (247% of KPI)
40	20 male First responders	114 male First responders	570% (285% of KPI)
15	15 male family members	40 male family members	267% (267% of KPI)

the  $\mathbb{R}^n$ -valued function  $\mathbf{f}$  is a solution of the system (1) if and only if  $\mathbf{f}$  is a solution of the system (2).

Let us assume that  $\mathbf{f}$  is a solution of the system (2). Then, for any  $t \in \mathbb{R}$ , we have

$$\mathbf{f}(t) = \mathbf{f}(0) + \int_0^t \mathbf{f}'(s) ds = \mathbf{f}(0) + \int_0^t \mathbf{A}(s) \mathbf{f}(s) ds.$$

Since  $\mathbf{f}$  is a solution of the system (2), we have  $\mathbf{f}(0) = \mathbf{0}$ . Therefore, we have

$$\mathbf{f}(t) = \int_0^t \mathbf{A}(s) \mathbf{f}(s) ds.$$

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## Chapter 6. What does the average mental health and wellbeing of DRA volunteers look like?

### How did we assess this?

We have asked all respondents to answer a range of mental health outcomes, allowing us to get insight into their basic mental health profile at the start of the study. The exact outcomes are provided in the 'methods' section. In addition, we asked participants questions related to their past mental health status and any engagement they have had with mental health services.

### Prior diagnosis and service use

Firstly, we will delve into whether respondents ever sought help by getting a diagnosis and subsequently what services they interacted with.

- **Officially diagnosed:** 19.5% of participants indicate they were officially diagnosed with a mental health condition. Diagnoses were varied, although most were diagnosed with PTSD, depression and/or anxiety.
- **Help-seeking:** A higher number of respondents (56.3%) sought help for their mental health. Most sought help from GP's, psychologists or counsellors, or psychiatrists. Other initiatives like Open Arms were less frequently mentioned.
- **Self-help or alternative services:** A substantial number of DRA volunteers also actively engage in seeking help outside of formal health services. Services were varied ranging from websites and apps, yoga and meditation, and engaging in physical activity to help manage their mental health.

### Current state of mental health

Although the above information indicates that only around 1 in 5 respondents have been formally diagnosed with a mental health condition, which is in line with contemporary estimates in general society (61), our data shows that the number of volunteers with mental health scores that warrant engaging with mental health services based on their current mental health status is higher.

### Baseline presence of distress, depression or anxiety

At baseline, a total of 29.4% of respondents had distress, suicide risk, depression or anxiety scores

that met or surpassed risk cut-offs on the measures we used. This means that they displayed at minimum scores that indicate mild active distress or point to the presence of clinical symptoms of depression and anxiety. Roughly 38.0% only met the threshold for one of the criteria, with the rest scoring above the cut-off for more than one outcome.

### Current or future risk of mental health problems

As mental health is more than simply the absence of mental illness, we need to expand our view beyond pathology and include poor performance on mental wellbeing and resilience measures. This is important as poor performance on these positive mental health measures is linked to a higher risk of mental illness in the future (41, 42).

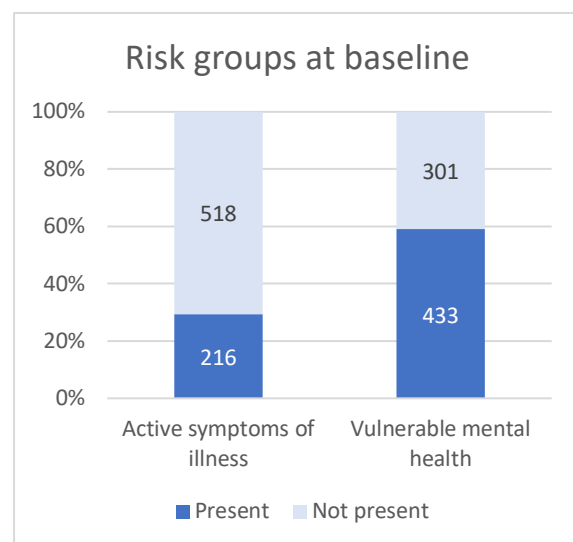


Figure 11. Number of participants which met official cut-offs (dark blue parts of the graph) on the scientific questionnaires we used to indicate they show current symptoms of mental illness (left), showed risk on the suicide screener (middle) or met a risk cut-off on any of the measures we used (right).

Are demographic variables influencing differences in baseline mental health?

**Gender effects:** There were no significant differences found on any of the baseline mental health indicators for males versus female volunteers at DRA. As there are no differences, this report will detail results for the entire sample, as the inclusion of females in the sample increases its size and therefore the predictive power of our analyses.

**Age effects:** There were clear significant age differences that could be noted across the sample. Across all the outcomes, the participants who ranged between 65-80 years old significantly differed from the rest of the sample. As for examples the graphs below on “presence of Meaning” and “Distress” show, volunteers in the oldest age bracket, who are likely in retirement, are on average in a better mental position.

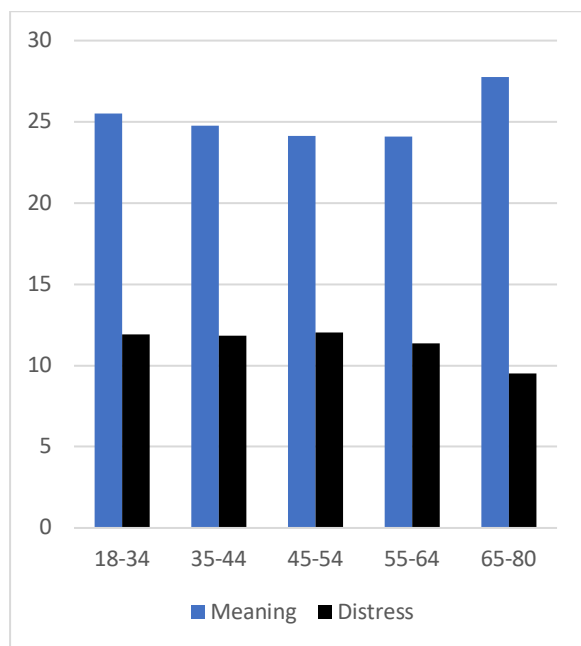


Figure 12. Average scores for ‘presence of meaning’ and ‘distress’ per age bracket. Higher scores for meaning are positive, while lower scores for distress are positive.

## How do DRA volunteers compare to the general population at baseline

### Demographics in the general population control group

The general population control group acts as a naturalistic comparison in this study and acts as a reference group. The control group is taken from an ongoing ‘rolling’ study on mental health and wellbeing called the Wellbeing Over Time (WOT) study. There are significant differences between the general population control group and DRA when it comes to its composition.

- The DRA sample on average is significantly older, 51.6 (sd = 13.0) versus 44.5 (sd=14.0). As older age is related to higher wellbeing, this will have to be corrected for when we present results with the control group.
- There are more females in the control sample. As there are no large gender differences in the samples we tested, this variable will not be corrected for when comparing the total DRA sample and the control group.

### General differences with the control group at baseline

When we compare DRA volunteers with the general population controls, there is a significant difference across all outcomes except for loneliness. After controlling for the above mentioned age differences in group – as older age is related to better mental health scores – these significant differences are maintained for most outcomes except optimism,  $F(8, 1354) = 19.1, p < .001$ ; Wilks'  $\Lambda = .90$ ; partial  $\eta^2 = .10$ .

Particularly, DRA volunteers:

- Have higher mental wellbeing
- Have higher resilience
- Are searching for meaning more
- Have lower levels of distress, anxiety, depression and stress levels



### Volunteers within the control group.

One potential explanation for the found mental health differences lies in the fact that DRA is a volunteer organisation. As volunteering is associated with better mental health, it may be a general lack of volunteers in the control group drives the mental health scores down.

A subset of WOT-study participants (n=641) answered a question on their volunteering status: 41.8% never volunteered, 37.0% volunteered in the past and 21.2% were current volunteers. When comparing the baseline scores for this subgroup (current volunteers) to the DRA volunteers, we see that volunteers in the control group score better on several mental health indicators compared to those who do not volunteer, showing general support for the notion that volunteering in general relates to higher wellbeing,  $F(24, 3950.8) = 7.5, p < .001$ ; Wilks'  $\Lambda = .88$ ; partial  $\eta^2 = .04$ .

Interestingly, there were no significant differences in scores between current volunteers and people who volunteered in the past across outcomes. For example, as the figure below shows, optimism is significantly higher for anyone who volunteers, both currently and in the past. This suggests that any differences in mental health outcomes may not *simply* be related to the act of volunteering but is also influenced by the characteristics of the type of person that is drawn to start volunteering in the first place.

Some observations of interest include:

- that DRA volunteers scored significantly higher wellbeing compared to all volunteer sub-groups of the WOT-group.
- that DRA volunteers had lower levels of depression and anxiety compared to prior volunteers, as well as higher resilience.
- That DRA volunteers show that they continue to search for meaning in their life at a higher rate than the control group sample.

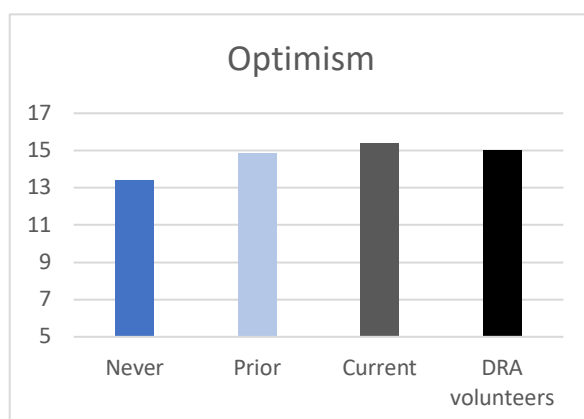


Figure 13. Average scores for optimism split for control group participants who never volunteers, volunteered in the past, are current volunteers and the combined DRA cohort.

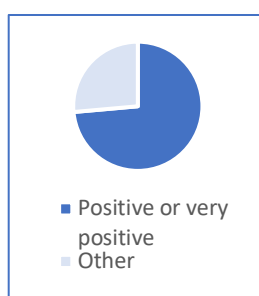


## Chapter 7. Long-term impact – responses from survey

### How did we collect this data?

We embedded several questions into the Baseline and 6-month surveys. We asked simple questions and provided the opportunity for participants to add comments and context to their answers.

### What impact has volunteering with DRA had on your mental health specifically?



Three quarters of respondents said that DRA had a positive or very positive effect on their mental health. Most (23%) who indicated 'no impact' had yet to fully participate or engage with DRA.

Many participants wrote "As above" when asked to provide context indicating that for many the general benefit that they gained from DRA was related to their mental health.

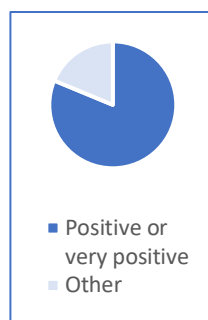
#### Quotes

*"[Volunteering at DRA] keeps me grounded & thankful for what I have in my life."*

*"I was lost before I found DRA. DRA gave me people to aspire to, and a community built on positivity and service to something bigger than myself. Here I can make a real difference to both the people we help, and the people with whom I serve. In short, serving in DRA turned my life around and gave me and my family back a future. I don't think I could have got there myself. They trusted me and it was by doing, and being trusted to make decisions, that I regained my self-confidence."*

*"Listening to other people's experiences and shared perspectives and perceptions grounded me and gave me other strategies for dealing with stressful incidents and grieving processes. It gave me a sense of not being alone via the company of people that "get it" with no judgement."*

### What impact has volunteering with DRA had on your life in general?



Over 80% of surveyed DRA members reported that volunteering had a positive or very positive effect on them in general. Out of the people who provided neutral responses, the majority (16%) had not yet had the opportunity to be deployed and/or had just started as a volunteer.

When asked to provide context, the answers generally could be traced back to the key drivers outlined in the DRA Wellbeing Model in chapter 3.

- DRA facilitates meeting great people, often with shared experiences.
- It allows them to help others who experience hardship, building a sense of community.
- It increased their self-worth, so they felt they had something to offer people, feeling useful, and using their skills and expertise for good.
- It made them be part of something greater than themselves, providing a sense of purpose.
- It was a rewarding and fulfilling experience.

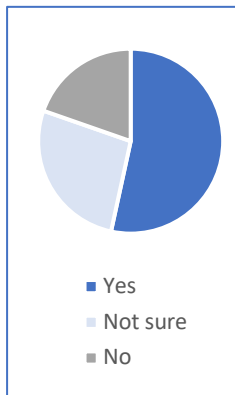
#### Quotes

*"Volunteering gave me a renewed purpose following retirement."*

*"[Volunteering at DRA] has given me camaraderie, sense of purpose, structure, toe dipped back into military humour, new friends and a feeling of satisfaction helping communities, outward appreciation from victims and sense of belonging."*

*"Volunteering specifically has had a positive effect because it has given me the opportunity to help people who really needed some support and show them that people do care, that knowledge that people do care, to the point that they will give up their time and come out and help. [This] can have a profound impact on the psyche of a disaster affected person. Seeing this has bolstered my faith in people, made me feel connected to communities and appreciated for my skills and values."*

Do you feel service with DRA has helped you during or after your transition into civilian life?



Around half of the respondents indicated that volunteering at DRA resulted in a more positive transition and reintegration process. Many of the No's and Not Sures said that they had already transitioned before joining DRA – so there was a disconnect between transition and participation in DRA.

Some indicated that DRA did not help transition because their transition was already smooth. This was independent from their enjoyment -i.e. this group enjoyed DRA and reported a very positive impact.

The main themes for the free-text responses indicates that people reported feeling like they could fit in (which was difficult in civilian life), reconnected to a sense of mateship that they hadn't felt since serving, and are using skills they worked hard to develop (and may have been going to waste).

### Quotes

*"I spent a career protecting the community for a career and a wage. Now I serve the community in need for free - it's very satisfying!"*

*"Deploying with DRA makes me feel like I'm making a valuable contribution much like when I served in the military. Likewise, I feel like I work well as part of a team when deployed with DRA, we all have a common purpose and repeat each other."*

*"It's reminded me I am a veteran and the special camaraderie that being part of the veteran community brings. It's a great role model to hold up to my children."*

Have you ever deployed with a family member and how was this experience?

A subset of volunteers who participated in the research had experience deploying with their family members.

Respondents spoke about how deploying together helped them form stronger bonds and relationships and develop insights into one another that they felt they didn't have without doing so.

### Quotes

*"I've deployed with my son, and it's brought us closer, I'm proud to see him volunteer his time and it's great to see how respected he is by others"*

*"It allowed us to have shared experiences. My partner got to see all the best bits of the military, the teamwork and mateship, good leadership and purpose. It bridges a major gap between us and gave us some shared experiences that brought us closer together."*

*"I've worked with my eldest daughter who has only seen my career from a distance. It showed her my empathy for those in need."*

*"It was a service weekend with my son. He learnt skills, we had lots of intimate conversations and even now, that time will come up now and then."*

*"I have deployed many times with my sister. We are both retired and live in different cities, and we love to catch up while on deployment. She is a veteran and I appreciate her service and that of other veterans that we deploy with."*

*"Similar goals and endeavour help bring us closer together and the shared experiences opens up discussion that couldn't happen if only one of us experienced them."*



## Chapter 8. Immediate impact on mental health

### How did we assess this?

We used a technique called “daily-diary” or “ecological momentary assessment” (62) to determine the immediate impact that participating in disaster relief volunteering has on volunteer mental health. In brief: this method relies on participants rating their mental health using short *daily* questionnaires that capture someone’s experience in the moment, across the entire duration of the deployment. This is different from traditional survey methods, which generally rely on people thinking back over a longer period, e.g. 2 weeks or a month, which can introduce potential issues such as ‘recall bias’. We grouped these daily scores into stages:

- **Pre-deployment:** three days of measurement before people go on deployment to establish their baseline.
- **Early deployment:** two days at the beginning of the deployment.
- **Mid deployment:** two days in the middle of the deployment.
- **End of deployment:** three days at the end of the deployment.
- **Post-deployment:** three days after arriving home from deployment.

We then ran analyses focussing on comparing scores before people went on deployment with those at the end of deployments and after they finished.

### What did we expect to find?

We expected to find a specific response pattern based on 1) anecdotal evidence from DRA and prior research studies into DRA, e.g. a report produced by Military and Emergency Services Health Australia (MESH) (21) and 2) preliminary results from our pilot study. We were expecting that:

- Mental health was the lowest just prior to going on deployment, e.g. because of the stress that leaving one’s house may bring and the stresses associated with everyday life.

- A steady improvement in markers of mental health during the deployments.
- A slight dip in mental health markers upon return, due to returning back to everyday life, which hopefully stayed higher than baseline levels.

We furthermore anticipated that improvements would be more pronounced for members who were identified as vulnerable, i.e. those with a prior diagnoses of mental health problems.

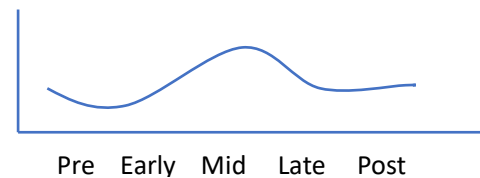


Figure 14. Visualisation of hypothesised results, where higher scores indicate improvements.

### Analysis of the results

#### Total sample

In total 116 valid daily diary measurements were collected across the study period, from a total of 96 individuals who volunteered to submit their data. The results from the data support the hypothesised effect: participating in deployments increased in-the-moment mental health outcomes.

Figure 6 shows the average daily scores for wellbeing-related outcomes (6A) and outcomes of distress and loneliness (6B) across deployment stages. We calculated so-called ‘effect sizes’, to help in interpreting the magnitude of the impact. Any effect that is indicated as small or higher is a genuine ‘observable’ significant difference. Most effective wellbeing interventions reach small effects (16), so any similar or higher result is desirable.

Overall a significant effect over time was observed, showing improved mental health outcomes,  $F(20, 76) = 3.26, p < .001$ ; Wilks'  $\Lambda = .54$ ; partial  $\eta^2 = .46$ .

- For wellbeing-related outcomes, significant increases were noted across all outcomes at end of deployment, with small to moderate effect sizes. For depression, anxiety and loneliness we also found significant small to moderate effects, except for stress.
- Effects post deployment decrease slightly from the end of deployment. Significant small effects remain for feeling useful, purpose, connection with others, loneliness, anxiety and feeling resilient.

### Vulnerable sample

We used past diagnosis to identify vulnerable individuals. This cohort showed significant improvements across all outcomes at all time-points, with moderate to large effect sizes,  $F(20, 76) = 3.26, p < .001$ ; Wilks'  $\Lambda = .54$ ; partial  $\eta^2 = .46$ . This highlights that positive effects would be particularly noticeable for people with a more vulnerable mental health status to begin with.

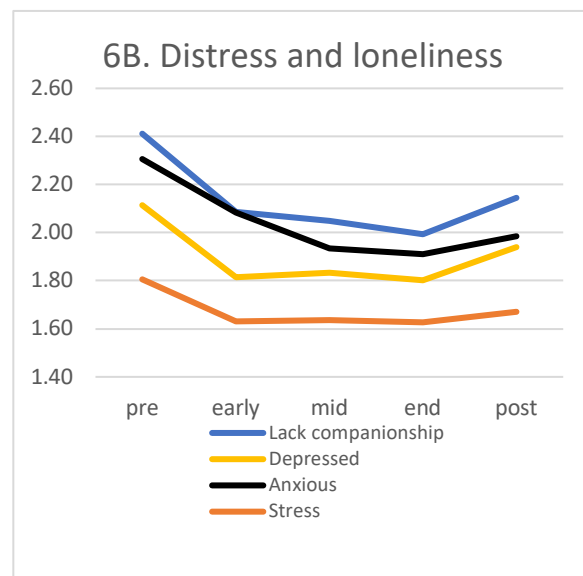
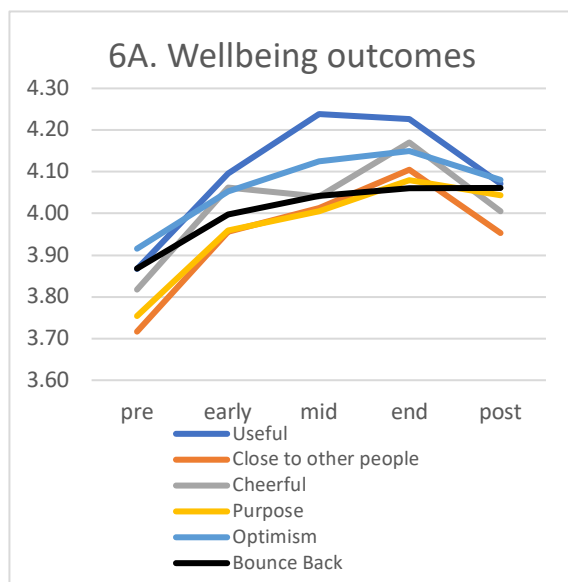


Figure 15A and B. Daily diary measurement visualised per stage of deployment. For wellbeing-related outcomes (left graph) higher scores indicate improvement, while for distress and loneliness outcomes (right graph) lower scores indicate improvement.

### What does this say in a nutshell?

Volunteers on average show significant improvements in most mental health outcomes when going on deployments. The magnitude of impact differs per area of mental health we focus on, with the strongest changes being observed for indicators of connection and loneliness, purpose and resilience.

Volunteers who are more vulnerable (people with a previous diagnosis and those who have actively sought help for mental health in the past) are the ones who benefit most from going on deployments when it comes to seeing positive changes in mental health outcomes.





## Chapter 9. Longitudinal impact of the volunteering program

### How did we assess this?

We conducted quarterly surveys over a 12-month period. Participants filled out 10-15 minute surveys on a range of scientifically validated mental health questionnaires. As described in the 'methods' section, questionnaires tapped into positive domains of our mental health (wellbeing, meaning in life, optimism, resilience) and negative domains of our mental health (loneliness, distress, depression, anxiety). All questionnaires were scientifically validated for use in longitudinal studies. We invited the entire DRA mailing list to participate in the quarterly surveys, which included 'passive' members, who have to date never participated in a DRA deployment or have not participated in a deployment for at least 2 years. These passive members acted as a control group to determine the impact of the program. Further, data from a general population control group was used on occasions to provide insight into how DRA volunteers compare to other members of the Australian population.

This section provides a narrative summary of an extensive set of statistical analyses. In brief, we:

- conducted an analysis on the datapoints for everyone who completed all five quarterly questionnaires (a completer analysis). The technique used was a multivariate analysis of covariance (MANCOVA), which interrogate the responses of those participants that provided data on each of the time-points.
- We ran multi-level models, using both the complete original data and a set that we could use to model imputed data.
- To improve the predictive power of the above analyses, we used multiple imputation to model the responses of participants who dropped out. We then ran the same analyses on the imputed dataset to model what the results would look like without drop-out.

The combination of these different analyses techniques, to form judgement on the results, was deemed necessary to counter a number of challenges with the data that caused issues for each of the individual approaches, including for example high levels of drop-out and missing values. By looking at the result of each of them, we aimed to land on a more accurate judgement of

the effect of volunteering on wellbeing and mental health in the study.

### What did we expect to find?

We expected to see a general improvement in mental health outcomes for members who deployed versus those that were passive. We expected that these changes were more profound for people with more vulnerable mental health.

### Analysis of the results

#### Results for the total sample

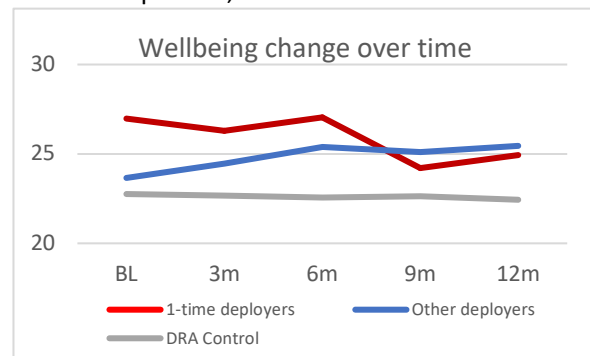
We firstly conducted tests on the sample of participants who contributed data to all five timepoints. Out of these 286 participants:

- 80 were Active Deployers
- 65 were part of the DRA control group
- 141 were part of the general population control group.

We could see the hypothesised effect within the data, but the overall analysis failed to reach significance. This indicates that changes over time were not statistically different between the groups. After interrogation of the data, we noticed that participants who only deployed once during the study showed a completely opposite data pattern compared to participants who deployed more than once. Rather than demonstrating a general improvement, this small sample of deployers (n=9) demonstrated a worsening across the outcomes, see graph below.

Figure 16. Wellbeing trajectories for the DRA control group, onetime deployers, and anyone who deployed more than one time (other deployers).

As a consequences, we decided to rerun the



analyses without the one-time deployers in it. We felt this was not only warranted based on the data, but could also be theoretically justified. It can be

hypothesised that people who only deploy once are more likely to include people who are not getting a benefit out of DRA as they did not see a reason to return to volunteer. Additionally, it can be argued that just deploying once may not be enough to get a sufficient 'dose' for a long-term effect.

Re-running the analysis on the total sample without the one-time deployers demonstrated a significant small effect when looking at all the mental health outcomes combined,  $F(48, 502) = 1.51, p = .018$ ; Wilks'  $\Lambda = .76$ ; partial  $\eta^2 = .13$ . What this means is that we have an observable difference between the three groups (active deployers, one-time deployers & DRA control group?) across all the outcomes.

As the combined model was significant, we went on to interrogate the individual outcomes. The graphs for each of the outcomes over time are presented on the following page with positive mental health outcomes on the top row and negative indicators on the bottom row. Significant differences with small effect sizes between groups were noted for wellbeing, optimism, loneliness, distress, depression and anxiety. No differences were noted for the two meaning outcomes, resilience or stress. Any graph with a significant change is demarked with an Asterix.

Looking at the top graphs on the next page –where improvements are better - we can clearly see that the significant differences are driven by improvements in the Active Deployer group, rather than differences between the two control groups. Indeed, post hoc Bonferroni tests show this is the case. A similar finding can be noted in the bottom graphs – where reductions are indicative of a positive change.

After finding the positive effect on the completer analysis using the simpler MANOVA analysis, we continued to run multilevel models for each of the individual outcomes, which allows us to use the data of everyone who contributed, rather than just the data from completers. The multi-level models supported the results found.

### Higher impact for more vulnerable volunteers

Similar to the analyses for the deployment sub-studies, we placed specific focus on the role that

vulnerable mental health would play on impact. We created three different variables of interest:

- Prior mental health diagnosis: anyone who indicated they had a formal mental health diagnosis at one stage of their life.
- Current pathology: anyone whose scores for the distress, anxiety, depression and suicide measures reached a risk cut-off.
- Vulnerable: anyone with current pathology as well as people with low wellbeing and resilience (which placed them at risk of future illness).

We re-ran the completer analysis first showing significant overall analyses for each of the three cohorts, with effect sizes being higher compared to the total sample for the vulnerable and current pathology group. The analysis for the group of people with a prior diagnosis was not significant.

Vulnerable (n=166)	$F(48, 320) = 1.69, p = .005$ ; Wilks' $\Lambda = .64$ ; partial $\eta^2 = .20$ .
Current pathology (n=92)	$F(48, 132) = 1.84, p = .003$ ; Wilks' $\Lambda = .36$ ; partial $\eta^2 = .41$ .
Prior diagnosis (n=60)	$F(48, 68) = 1.38, p = .11$ ; Wilks' $\Lambda = .26$ ; partial $\eta^2 = .49$ .

Similar to the previous analyses, we re-ran the analyses using mixed models, confirming the findings for the above models, while also returning a significant model for people with a former diagnosis. Although the difference in change was less profound than we saw in the deployment studies.

### What does this say in a nutshell?

The quarterly studies provide evidence that indicates mental health outcomes increase over time for actively deploying volunteers, most notably for wellbeing, optimism, loneliness, distress, depression and anxiety. The data suggests that deploying just one time does not lead to improvement and that the rate of positive change was generally higher for people with a riskier mental health background.

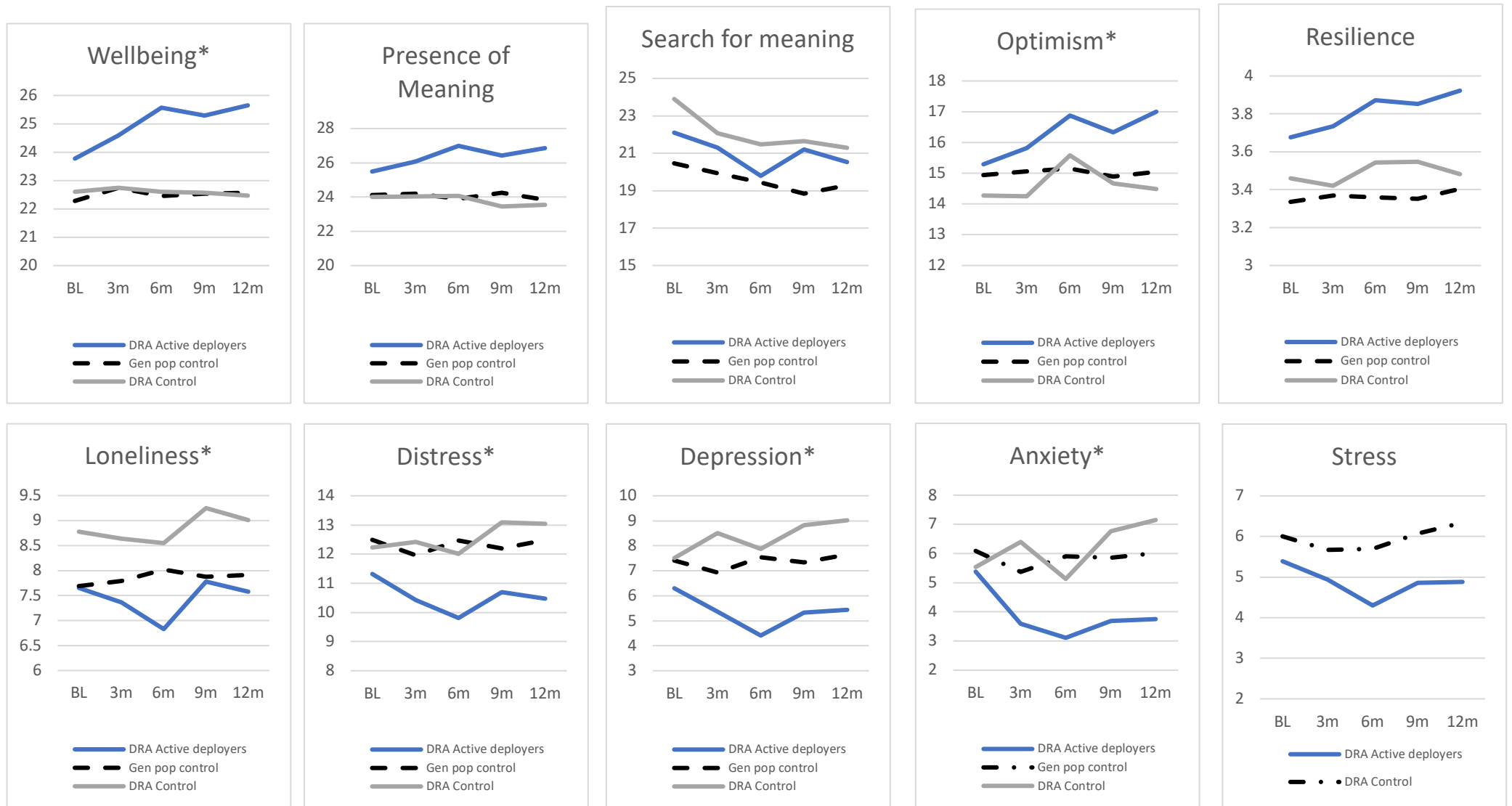


Figure 17. Trajectories for each of the main mental health outcomes we monitored across the quarterly studies, split for DRA control participants, DRA active deployers and the general population control group.



## Chapter 10. Summary of report findings

This project report summarises the findings of the DRA Wellbeing Study. The study utilised a combination of methodologies to indicate the mental health and wellbeing benefits that members receive from volunteering.

### Validation of the DRA wellbeing model

The data gathered in this study finds overall validation of the DRA Wellbeing Model presented within chapter 3. It details in-depth data to support the three levels presented within the model.

DRA offers a unique set of activities and experiences that supports the wellbeing of volunteers



The surveys and qualitative interviews detail the value that volunteers derive from the *unique combination* of activities and experiences that DRA offers its volunteers, which in turn drive a number of positive behaviours that are ultimately responsible for any improvements in mental health. The main elements identified in level 1 of the DRA wellbeing model are:

- Active volunteering – deployment and training opportunities offer the opportunity for active volunteering.
- Connection - allowing people to form positive relationships with people with similar worldviews.
- Development - providing informal and formal upskilling opportunities.
- Recognition - being recognised for contribution of valuable skills.
- Supportive conversations - creating an environment for supportive conversations for vulnerable members.

### Deployments provide a unique setting to support wellbeing.

Although the positive impact of DRA can be brought by any combination of these distinct activities, e.g. upskilling and training opportunities which happen at regular intervals throughout the year, the most profound impact comes from participating in deployments, which effectively are intense periods where each of these mechanisms come together. The insights from chapter 8 provide clear evidence of this positive benefit, by demonstrating significant changes in daily experiences of mental health at the end and immediately after volunteers go on deployments, particularly for people who had vulnerable mental health to begin with.

These positive results for volunteers with vulnerable mental health is of particular interest, as the DRA environment offers a set of active ingredients that are difficult to emulate by mainstay mental health intervention. Deployments allow volunteers to be physically active, thereby quite literally putting their body to good use again. They bring people together, in a pro social environment that stimulates development and promotes a sense of self-worth. As the key focus for deployments is to be active and help others, and as such does not require someone to interrogate and work on their mental health explicitly, it tackles certain limitations of mainstay treatments. For some men for example, it is reported that activity-driven environments may be more suitable and less threatening compared to traditional therapies that require one-on-one conversations.

### Connection with like-minded people, encouraging open and supportive conversations.

For veterans and first responders specifically DRA creates connections with people with similar experiences, facilitating the processing of experiences that is more difficult with people who for example are not readily exposed to trauma or have worked within a more strict hierarchical organisational structure. For military veterans, it offers the added benefit for their transition out of the military, by facilitating bonding with civilians who are attracted to the DRA ethos and as such may provide a softer-entry into civilian

relationships. For civilians, it provides the opportunity to work within an environment that is highly task oriented and focused on achieving goals and real-life impact that is sometimes difficult to achieve within civilian roles.

Consistent volunteering with DRA leads to significant changes in determinants of good mental health.



On average and by combining insights from the qualitative interviews, deployment studies and quarterly studies, significant benefits to key determinants of someone's mental health were demonstrated, particularly for active deployers. This benefit is noticeable early on in deployments and over a longer period of time. Linking it back to the wellbeing model, data supports changes in the main determinants hypothesised to be responsible for changes in mental health outcomes, being:

- a sense of belonging,
- optimism,
- purpose,
- enjoyment,
- self-worth; and
- competency.

Some of the qualitative interviews spoke to participants noticing immediate profound changes after going on just one deployment. While singular deployments may make a long-lasting *impression*, data from the quarterly studies suggests that participants generally need to go on multiple deployments to see a longer term material impact on mental health. This aligns with established literature on wellbeing interventions that suggest that more intensive interventions – which are generally delivered over time or on an ongoing basis – have more impact (16).

It is important to note that not everyone demonstrates significant improvements. The benefits are most obvious for participants with a more precarious mental health history. For example, people with a past diagnosis of mental illness responded particularly strong in the deployment studies while, people who showed

more vulnerable mental health at the start of the study (i.e. those who crossed a risk cut-off on any of our measures) demonstrated more significant change across the quarterly studies.

DRA volunteers have good mental health compared to the general population



The quantitative data showed that DRA volunteers on average have significantly better mental health compared to our general population cohort. As can be inferred from the 12-month data, this difference may be driven by volunteers who actively deploy. That said, DRA volunteers demonstrate other characteristics that can contribute to the difference. For example, current and past help-seeking behaviour was good, pointing to the fact that many of the volunteers are in a good place or are trying to get there.

Finding such positive rates of mental health was somewhat surprising, considering DRA largely attracts veterans and first responders. The positive mental health rates had consequences for our analysis as many participants demonstrated so-called floor- and ceiling effects: it is difficult to see a significant improvement in mental health when someone is already healthy to begin with. This observation in the quantitative data was supported by the interviews with volunteers who indicated they 1) felt they were in a better space than they were before they joined, possibly having already reaped the rewards of volunteering with DRA before the wellbeing study commenced and 2) wanted to join DRA because they felt they needed to give back as their life was going well. This for example can explain why we did not see a long-term shift in meaning in the quarterly studies, despite purpose (a sub-component of meaning) playing such a strong role in the qualitative and free-text data.

What is important to note is that simple maintenance of mental health, rather than improvement, by itself is a positive outcome, particularly considering the study was conducted

in a period of volatility in Australia, e.g. following the COVID-19 pandemic and during the recent cost-of-living crisis. Maintaining good wellbeing is protective against developing future illness and as such the lack of improvement for those who were already well therefore does not imply a lack of benefit received.

## Practical implications of the findings

The data in this report shows the important role that organisations like DRA can play for veterans: organisations that do not explicitly have a focus on mental health, but due to their modus operandi and culture can make a real difference in helping veterans improve their outlook in life and the way they feel, while at the same time providing an essential service (i.e., disaster relief) to the Australian community. The valuable data that lies at the heart of this report can be used to underpin a set of practical recommendations for DRA to consider so as to maintain and strengthen its impact on volunteer mental health and wellbeing.

### One-time deployers

One of the findings of this report suggests that people who only deploy once, may be at a risk of poorer mental health in the future. There may be a multitude of reasons for this finding, some of which were alluded to in the surveys and the interviews. For example the individual may not be in a good mental space to actively volunteer on an ongoing basis, the deployment may not have been a good experience, or they may have been unable to join a planned deployment. Regardless, it is in DRA's vested interest to check-in with these volunteers after a period of at *least 6 months*, as it may help detect vulnerable volunteers, but can also provide DRA with an opportunity to reconnect with people who may wish to re-engage.

### The vulnerable volunteer

The data indicates the presence of a cohort of volunteers who currently struggle with active distress or poor wellbeing/resilience (58.3% in total). A continued focus on this cohort is recommended and has indeed been noted through conversations with DRA staff.

This firstly feeds into the work that the Wellbeing Team is doing. Across the data collected, volunteers were generally very supportive of the wellbeing team and the provision of the wellbeing

support services that DRA provides. Some members noted that the service will benefit from further professionalisation, as has been happening in recent years, specifically considering DRA's recent growth.

Secondly, it is important to note that continuing to focus on vulnerable volunteers does not equate to adding more services, but rather speaks to DRA continuing to build on its welcoming culture, while at the same time having safeguards in place to help people who need support. The organisation is a volunteer organisation first and foremost. Many people with active symptoms of distress or a diagnosis, lead a meaningful and satisfying life despite experiencing active distress (40). This report shows that the sheer act of volunteering can have positive benefits for those vulnerable members.

### Younger volunteers

As is the case across the Australian community and workforce, younger people tend to struggle more with their mental health. Conversely, in DRA, older volunteers have particularly good mental health. Considering the strong focus on camaraderie, social connection and learning from peers, DRA may wish to explore how tapping into the stability of some of its older volunteers may be used to provide a supportive experience for younger volunteers, particularly those who may be vulnerable, e.g. a peer or buddy system to connect during and outside of deployments.

### DRA is not suited to everyone

DRA's culture is modelled on a military culture, which has both up and downsides. Based on the interviews, DRA has been working to retain positive elements while stamping out more problematic ones (e.g. continuing an emphasis on more responsible alcohol use during deployments), in line with becoming more professional as an organisation.

### Leaning into the positive

One of the key outcomes of this report has implications for the way DRA positions itself when it comes to mental health. While mental health is often discussed in terms of deficits, pathology and challenges, DRA offers opportunities for people to build mental health resources. This will not only make the organisation's focus on wellbeing more applicable to people without immediate symptoms of mental illness, but also brings it in line with

contemporary and emerging literature which emphasises the need for ways to improve positive drivers of health, rather than simply targeting the causes of illness. It also allows the organisation to clearly differentiate how it can help veteran wellbeing informally, acting alongside more formal support pathways and services.

## **What's next?**

Despite data collection having come to an end, dissemination of the project's results has only just begun. This report therefore marks the start for analysing the wealth of data collected in this study, with conference presentations and number of peer reviewed publications being prepared.



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