



# Evaluation Report YEAR 4 OF NATIONAL LOTTERY FUNDING

**SURF ACTION 'CENTRE OF EXCELLENCE'** 30/05/16 – 29/05/17



AN EVALUATION OF THE FOURTH YEAR OF SURF ACTION'S FIVE YEAR 'CENTRE OF EXCELLENCE' PROJECT PART FUNDED BY THE 'BIG LOTTERY FUND'

**LOTTERY FUNDED** 

# **Surf Action**

Surf Action is the trading name of Combat Surfers, a Cobseo registered military charity (Charity Number: 1140191) with the primary objective to support the Military Covenant by promoting and protecting the physical and psychological wellbeing of serving and former serving members of the Armed Forces and the Blue-Light Emergency Services and their families who are living with physical and/or psychological difficulties as a result of their service and to assist them into making the transition into civilian life.



Surf Action promotes good mental health through personal development, education and employment and empowers its service users to lead healthy, fulfilled and independent lives and to become valued and active members of their community. Core to achieving this is the use of the blue gym concept and involving our service users and their families in surfing, kayaking, paddle-boarding, and other high intensity water-sports in the magnificent coastal environment around us with the resulting recognised physical and psychological health benefits. National Lottery funding was awarded to allow this provision to be extended, improved and enhanced over a 5-year period, the fourth year of which is now complete.

#### YEAR 4 IN BRIEF:

This has been a busy year for Surf Action:

#### **Beach Clinics**



We held 108 beach clinics throughout the year split between Newquay (north coast) and Praa Sands (south coast). This means they even took place on Christmas and New Year's Eve's during 2016! The Saturday clinics allow those who work during the week to continue to access them with their families. Some people are very nervous of joining a main beach clinic, so extra evening-sessions are made available by arrangement with the aim of them ultimately joining the main clinic.

#### **Family Ocean Therapy Courses.**



In Year 4, we ran a series of eight, back-to-back 8-week ocean therapy courses for the armed forces community based at Praa Sands and Stithians Lake. Four were surf courses; three were BCU Kayaking courses and one a BSUP stand-up paddle-boarding/windsurfing course. The aim of the courses was to promote physical and psychological wellbeing whilst strengthening community relationships. Over

70 children from 48 armed forces community families participated. We continued to encourage parents to participate with their children and this continued to be highly beneficial to everyone. The course feedback and outcomes were excellent. This further justified our method of service delivery.

#### **Visiting Regiments**



We were glad to host two groups of visiting armed forces personnel during the year. One group was from the Royal Artillery and the other from the Clyde Submarine Base. It is good to see that both groups asked for a presentation about psychological resilience as

part of their visit. The feedback was excellent and we expect more visits next year.

#### **Residential Week**



In March, we ran a highly successful residential for eight veterans, based at Hawkers Cottages 1 and 2 (courtesy of the Landmark Trust) at Coombe near Morwenstow in north Cornwall. The aim of the event was to boost the physical and psychological resilience of the attendees by taking them to a remote location where they would be free of the many pressures of modern life (such as mobile phones, social media, drink and drugs) and be able to concentrate on themselves and their recovery. The cottages had no TV, internet or mobile phone signal. Their participation also gave their partners/families the chance to have some time to themselves. Each day there were strenuous water and land based activities alongside talks from outside speakers and discussions/lectures about mental health. Everyone participated in cooking

and cleaning and the feedback was excellent. This has further justified our approach to service delivery.

#### **Families Beach Day**



In addition to the eight Families days included in the Ocean Therapy Courses we ran, an extra Families Beach Day at Praa Sands that was attended by over 60 members of the armed forces community. The aim of the day was to build stronger family and community relationships through vigorous water and beach based activities alongside the change for beach discussions. A healthy light lunch was also provided. We managed to get everything completed before the torrential rain arrived. The fact that so many people braved the

terrible forecast was most gratifying. The feedback was excellent with many saying it felt like a big family day out. This was great to hear. We will run more such events in the future.

#### **HMS Bulwark**



We were very pleased to be nominated as one of the armed forces charities which the Royal Marines embarked on HMS Bulwark chose to fundraise for on their deployment to hotter climes earlier in the year. Marine Ryan Joslin arranged a 12-hour ultra-marathon which involved running around the upper deck 295 times (a distance of 65.5 miles!) in extremely hot conditions. They raised over £1400 for us and we were very pleased to see that what we do is being recognised and appreciated by serving personnel. We are hoping to work more closely with the Royal Marines in the future and this will also help strengthen the ties within the armed forces community.

#### **Wadebridge School**



We were very proud to be chosen by the year 10 students as their nominated charity, in their final year at Wadebridge School. The idea was that of Finlay Stewart, the Head Boy who had raised some money for us in 2012 as part of a London Olympics 2012 initiative. He liked what he had seen and thus wanted to do some more. We made several trips to the school and did presentations to various year groups including the staff about the importance of good physical and psychological wellbeing and resilience and how to try to enhance and maintain it. This was very successful and at their final assembly we were presented a cheque for £1500. We will continue to strengthen and develop the ties between the armed forces and civilian communities.

#### **Veterans' Centre**



The Veterans' Centre remains the hub of Surf Actions day-to-day activity and contains the main office from which the charity is run. It is the venue for volunteer training and educational sessions. Through meetings at the centre we have continued to strengthen our working relationships with a wide variety of other civilian and armed forces community organisations. Veterans are encouraged to drop-in and help-out. Rooms are available for therapy sessions

to those who require them or for meetings/discussions/education as part of their recovery. Surf Action takes every opportunity to spread its message and has presented to over 100 employers and other organisations, either individually or at conferences, during the year in

order to raise awareness both of the benefits of employing veterans and the importance of maintaining physical and psychological resilience. We delivered four psychological coping skills sessions to 65 family members at the centre in Year 4 and discussed the importance of 'occupation' in maintaining resilience and this included information about the benefits of having hobbies, regular mindfulness and relaxation and a connection with music and art.

#### **Volunteers**



Surf Action has continued to attract and maintain a large number of volunteers with a wide variety of skills and backgrounds and they are essential in our delivery model. They pass on a lot to the service users and learn other things in return. One volunteer is about to start training as a paramedic but hopes to stay helping at the Saturday surf clinics and will also be a valuable conduit through whom we can strengthen the ties between the armed forces and emergency service communities. Through our 'Volunteer to Work Route Pathway', we encourage those service users who have the time to do so, to volunteer in the main office and to help with arranging and developing our service delivery. We

recognise that occupation is an important part of recovery and two service users who made use of this route pathway have recently moved into full time employment. One as a health and safety manager at Falmouth Docks and the other as a driver with First Kernow.

#### **Academic Research**



A recently published paper 'Exercise is medicine for mental health in military veterans: A qualitative commentary' by Dr Nick Caddick (Veterans and Families Institute, Anglia Ruskin University) and Professor Brett Smith (School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham) has further endorsed our methodology and we were cited in it several times. We are now also working with The University of Exeter, Cornwall Council and the Natural Environment

Research council on a project called 'A Dose of Nature in Cornwall', a 'nature-on-referral service' which is being co-ordinated by Dr Dan Bloomfield of Exeter University. Many of the things, which we have been pioneering and providing, are now becoming mainstream and we hope to benefit from such realisation.



#### **Surf Action Joined-Up Recovery Model**

Surf Action has continued to develop its educational route pathways through which the service users can achieve their specific needs. It has also continued to refine its 'Integrated Joined-Up Recovery Programme'.

Surf Action defines 'Recovery' as living well in-spite of any difficulties we may have to face. We view recovery as a journey, a movement from the place a person is in to places that are better to be in, learning and making use of new skills and understandings along the way. The joined-up recovery model is a multi-dimensional (holistic) approach to improving one's mental health, which considers individuals' needs, environment, social network, relationships, diet, physical wellbeing and so forth. Surf Action recognises that recovery:

- Does not necessarily mean getting back to where you were before
- Happens in 'fits and starts' and, like life, has many ups and downs
- Is profoundly influenced by people's expectations and attitudes
- Requires a well organised system of support from family, friends or professionals
- Requires services to embrace new and innovative ways of working.





#### SURF ACTION JOINED-UP RECOVERY MODEL

# A HOLISTIC, MULTI-DIMENSIONAL INTEGRATED RECOVERY PATHWAY LEADING TO A FULFILLING AND INDEPENDENT LIFE

#### **Comprehensive Client Needs Analysis**

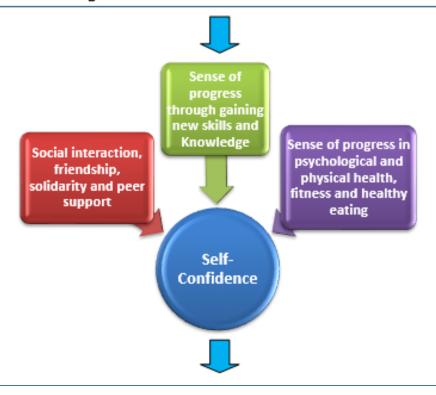
- Including a physical, psychological and emotional needs audit (Griffin & Tyrrell)
- Signposting where beneficial during initial engagement



#### 8 Week Evidence Based Ocean Therapy Course

QUALITATIVELY EVALUATED AND PUBLISHED (2015) BY DR NICK CADDICK OF THE 'PETER HARRISON CENTRE FOR DISABILITY SPORT' AT LOUGHBOROUGH UNIVERSITY

- Weekly high intensity physical activity in the coastal environment
- Based on the published work of Carly Rogers MA OTR/L, an Occupational Therapist based at the University of Southern California and a director of the Jimmy Miller Memorial Foundation. Ocean Therapy is being delivered to both veterans and serving personnel in the USA in order to boost physiological, psychological and emotional wellbeing and resilience.



#### **Empowerment and Education**

Building on the benefits of the Ocean Therapy we deliver programmes to develop:

- Improved motivation, self-belief, self-discovery and social development
- Improved family situations, relationships and peer friendships
- Re-engagement with society through volunteering or part-time/full-time work
- Stronger connections between the military and civilian communities
- Improved social integration and inclusion through strong community cohesion
- Independence not dependence



#### Into Work, Part-Time Work or Volunteering

Some veterans are still in the recovery stage from their injuries, whether they are physical and/or psychological, and are not ready for full-time work but they may be capable of doing part-time work or volunteering. Similarly some are on specific benefits and limited in the number of hours of work or volunteering which they can do.



The Ocean Therapy remains accessible throughout the Integrated Pathway.

Wellbeing is monitored and reported on throughout via a Wheel of Life Emotional Needs Audit (Griffin and Tyrrell) and the Universities of Warwick and Edinburgh Mental Well-Being Scale.



#### Educational and Motivational Courses

Those who are not ready for part-time work or volunteering are encouraged to attend some of our vocational and non-vocational life-skills courses at the Surf Action Veterans Centre. This helps build their self esteem and team skills, boosts their practical knowledge base, gets them back into a good routine and is good for their psychological wellbeing. This should all help in their recovery and move them in to a position where full or part-time work or volunteering is practicable.

The in-house courses offered include:

- Trauma and the brain
- Your rights as a consumer
- Electrical safety in the home
- Fire safety in the home
- First aid
- · Health and safety
- Manual handling
- Money and debt
- Photography
- Business Skills
- Boost your IT skills
- Housing Your rights as a landlord/tenant
- Brush-up on your GCSE mathematics
- Surf skills leading to a RLSS qualification



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#### **YEAR 4 PROJECT GOALS**

#### (REPORTING ON 40 VETERANS)

- Improving veterans' psychological and physical wellbeing allowing them to engage more with the community by removing feelings and habits of isolation as measured by regular assessment using a recognised evaluation tool.
- Increasing veterans' self-confidence and self-esteem and strengthening their family relationships by providing continuous support for veterans and their families wishing to escape the daily barriers as measured by regular assessment using a recognised evaluation tool.
- Improving veterans and their family's relationships as measured by regular assessment using a recognised evaluation tool.
- Improving veterans and their families' health and wellbeing by increasing their coping skills and knowledge of coping strategies.
- Improving the employment prospects of veterans and ex-service personnel by strengthening their knowledge of transferable skills needed in the civilian work place whilst also educating employers.

#### **METHODOLOGY**

As part of its integrated recovery programme Surf Action engaged its year 4 service users in structured 8-week cycles based around the Surf Clinics to aid their psychological and physical wellbeing. Improvements in these vital aspects of their lives were then used as a catalyst to engage them in the other services offered by the charity for them to move forward and achieve the best they could be allowing for their individual circumstances. Their families were also encouraged to participate and specific projects were run for them.

- A comprehensive case history of each veteran was taken at initial engagement. Wives/partners were encouraged to attend these meetings
- A physical, psychological and social needs audit was carried out on each veteran and their family

- Veterans and their families were signposted to partner organisations and charities to best satisfy the requirements of their needs analysis which could not be addressed by Surf Action
- Specific individual psychological support was provided through GP referral or selfreferral to the veterans' mental health charity 'Combat Stress', the network of therapists provided by 'PTSD Resolution', a charity which specialises in working with ex-service personnel and local NHS provision such as Outlook Southwest.
- A 'Wheel of Life' evaluation tool (based on the recognised 'Emotional Needs Audit' developed by J. Griffin & I. Tyrrell and adapted for use with veterans by Surf Action) was used to monitor the progress of each veteran at regular intervals. The qualitative areas of life considered were:
  - A living environment that feels safe and secure
  - At least one close friendship or relationship
  - Good family relationships
  - Engagement with the wider community
  - A sense of control over one's life
  - Privacy and personal space
  - Outlook on one's future
  - To give and receive healthy attention and to feel valued
  - Someone to turn to for support when one needs it
  - A sense that life has meaning and purpose
  - Time for hobbies and fun
  - A good quality of sleep
  - Feelings of isolation
  - Debt and financial management
  - Engagement in Employment, education, training or volunteering
  - Housing situation
  - Distressing images/memories
  - Feelings of anxiety, tension and nervousness
  - Feelings of stress
  - Feelings of depression

- A healthy diet and lifestyle
- Feelings of anger
- Alcohol intake
- Self-confidence and esteem

Veterans were asked to rate each of the 24 areas on a scale from 1 (very poor) to 10 (excellent) and this was used to generate the quantitative data to complement the qualitative data. Any score of 3 or below was indicative of a considerable stressor in the veteran's life. For the purposes of formal assessment only veterans/service users who had completed 3 wheels at regular intervals over 3-8 months as they engaged with the charity were included in the audit as it represented the best quality evidential data trail. Sometimes veterans tended to put N/A on the wheel in an area that they did not think was applicable to them, e.g. non-drinkers in the alcohol consumption area, and when this was found the N/A was recorded as a 10 as it was not a stressor of any sort in their life. It should be noted that the doubling etc. of an individual's audit score cannot reasonably be interpreted as a doubling in their wellbeing. It is however a significant indication of an improvement in their wellbeing.

For family members and children, a simpler scale was used. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was funded by the Scottish Government National Programme for Improving Mental Health and Well-being, commissioned by NHS Health Scotland, developed by the University of Warwick and the University of Edinburgh, and is jointly owned by NHS Health Scotland. It is a positively worded 14 area scale measuring emotional and psychological wellbeing. This scale is particularly suited for use with children (7 areas). To help the children Surf Action produced WEMWS forms with emoticons on with easy to read facial expressions.

- Weekly support and social interaction was provided by veteran engagement at the numerous surf clinics and associated activities run by Surf Action and by regular telephone contact with the Surf Action Welfare Officer.
- Specific family activities were provided throughout the year to facilitate extra opportunities for veteran, family and community engagement.

- Several 'PTSD awareness' sessions were provided by Surf Action to allow veterans and their partners to best understand the nature of PTSD and the various coping strategies which may be of help to sufferers.
- Surf Action continued to go out into the community and to meet with and present to a very wide range of organisations and employers. Veterans were encouraged to volunteer and to participate in this.
- Relevant data was collected, analysed and stored by Surf Action (ICO registered number Z3463898).

# **Ocean Therapy**

The 8 week Ocean Therapy Course remains at the core of Surf Action's service delivery. It uses the concept of the 'Blue Gym' and offers the opportunity to those who engage to experience the outdoor classroom environment and an exhilarating physical, emotional and social experience which can act as the foundation for improvement in health and wellbeing. Surf Action has continued to refine its delivery and to stay abreast of new research papers relevant to it and to incorporate new information when applicable.

## **SURF ACTION 8 WEEK OCEAN THERAPY COURSE**

Based on the research of Carly M. Rogers, OTD, OTR/L at the University of Southern California.

 Rogers C, Mallinson T, Peppers D (2014), 'High-Intensity Sports for Posttraumatic Stress Disorder and Depression: Feasibility Study of Ocean Therapy With Veterans of Operation Enduring Freedom and Operation Iraqi Freedom', American Journal of Occupational Therapy 68, 395-404.

Qualitatively evaluated at Surf Action and published by Dr Nick Caddick of 'The Peter Harrison Centre for Disability Sport', School of Sport, Exercise and Life-sciences at Loughborough University:

- Caddick, N., Smith, B., & Phoenix, C. (2015). The effects of surfing and the natural environment on the well-being of combat veterans. Qualitative Health Research, 25, 76-86.
- Caddick N & Smith B (2014), 'The impact of sport and physical activity on the well-being of combat veterans; A systematic review.' Psychology of Sport and Exercise 15, 9-18.
- Caddick N<sup>1,2</sup>., Smith B<sup>2</sup>. & Phoenix C<sup>1</sup>. (2015) Collective stories and well-being: Using a dialogical narrative approach to understand peer relationships among combat veterans experiencing posttraumatic stress disorder (Journal of Health Psychology 2015, Vol. 20(3) 286–299) (<sup>1</sup> European Centre for Environment and Human Health, University of Exeter Medical School. <sup>2</sup> Peter Harrison Centre for Disability Sport, University of Loughborough)
- Caddick N.<sup>1,2</sup>, Smith B<sup>2</sup>. & Phoenix C<sup>1</sup>. (2015) Male Combat Veterans' Narratives of PTSD, Masculinity and Health. (Sociology of Health and Illness, 2015). (<sup>1</sup> European Centre for Environment and Human Health, University of Exeter Medical School. <sup>2</sup> Peter Harrison Centre for Disability Sport, University of Loughborough)

PTSD and depression frequently co-occur and both are associated with functional and social disruption, including weakened interpersonal relationships and diminished psychological resilience and self-efficacy, limited activity engagement and role function and increased risk-taking behaviour. Returning Iraq and Afghanistan veterans have reported specific occupational performance needs in leisure (social relationships), self-care (physical health, driving, sleep), and productivity Some veterans engage in high-risk behaviour such as speeding, substance abuse, or aggressive acts to satisfy feelings of "invincibility" or sensations of "adrenaline rush"

High-intensity sports such as surfing, snowboarding, and rock climbing provide a socially acceptable alternative to risk-taking behaviours such as speeding and substance abuse. In addition, high-intensity sports may be an attractive treatment alternative for veterans who need support for reengagement in civilian life because such sports reflect the military culture of athleticism and patterns of engagement that involve physical, psychological, and environmental challenges. Participants in high-intensity sports describe them as transformative, creating new perspectives, and promoting courage through "balancing the natural state of fear with knowledge based on personal capabilities and technical expertise". Additionally, high-intensity sports that produce an adrenaline rush and that are more in line

with military culture might be beneficial as an adjunct to evidence-based treatments for PTSD such as exposure-based cognitive—behavioural therapies and medication management.

Surf Action's community-based, sports-oriented occupational therapy course (Ocean Therapy) uses the high-intensity sport of surfing in an experiential, skills-based experience specifically adapted for military personnel and veterans seeking mental health services. Consistent with conceptualizations of the transformative nature of engagement in meaningful occupations and the dynamic influence of environment on a person's performance this course combines surfing performance, focused group processing, and social participation to create opportunities for veterans to examine ways in which their individual values, abilities, and experiences can support successful transition to civilian life.

#### The Ocean Therapy Components:

Ocean Therapy is based on principles of occupational science and occupational therapy in which participation in meaningful activities within the natural environment (e.g., surfing) is both part of the therapeutic process and a desired outcome.

- One intention of the intervention is for participants to develop sufficient skills that they are confident and competent to paddle out, catch a wave, and ride it in to shore safely.
- The intervention is also designed to provide a supportive setting in which participants
  can reflect on the process and experience of acquiring new skills in a safe but
  unpredictable environment such as the ocean. For example, examining participants'
  responses to situational challenges on the beach, such as getting along with others or
  dealing with frustration if good waves do not come along, may provide lessons for
  successful transition to civilian life.
- Resiliency: Surf Action defines Resiliency as: A person's ability to apply successful
  coping strategies in response to stressful life situations to resume usual activity,
  engagement and social relationships. Resiliency in response to traumatic events can
  be facilitated by enhancing positive beliefs and attitudes and supporting creative
  processes (Ahmed 2007). Five themes of resiliency are used to conceptually frame the
  Ocean Therapy across the 8 week course;
  - 1. **Role Identity**. Many veterans have reported finding that their military service, skills, or leadership positions do not necessarily translate into civilian life, which can lead to frustration and a diminished sense of purpose. The content of this module is

- designed to guide participants in identifying their own positive traits and reflecting on the ways in which these traits are strengthened while learning to surf.
- 2. **Leadership and Trust**. To address this theme, participants make connections between the leadership skills learned in military training and how they can use those skills in civilian life. Participants also consider how these same skills are manifest in learning to surf (e.g., how their instructors led in the water, how trust was built with their instructor).
- 3. **Community Building**. The analogy of the "surfing family" is used to explore ways to build community or "brotherhood" (an important concept in military culture) among civilians. For example, participants reflect on the friendships made while surfing and the way their sense of community strengthened over the 8 weeks. Participants also reflect on lessons learned in surfing etiquette and how aspects of surf culture facilitate communication skills such as self-advocacy and conflict resolution.
- 4. **Problem Solving**. Many veterans have reported difficulty navigating what they perceive to be the less disciplined nature of civilian life in contrast with the order and stability to which they were accustomed in the military. In addressing this theme, participants are assisted to identify the particular approaches to problem solving they used during the surfing lesson and how those skills can also be used in negotiating daily life challenges. Working with their surf instructor to stay calm in a novel environment is an example of a tangible problem-solving skill applicable to assuming the role of college student or new employee.
- 5. **Transition**. In the last session, participants discuss their surfing progress achieved throughout the eight sessions and describe the ways they have begun to use the resiliency themes in their daily lives.

#### **Key Process Elements:**

Experience gained in engaging many veterans with surfing has indicated that four key process elements may enhance the therapeutic experience of this occupational therapy intervention by connecting participants' surfing experiences to their previous military identity and current challenges:

1. Relating Surfing Culture to Military Culture - Concepts used to describe military culture include masculinity, attention to the physical body, discipline, adrenaline, and a mission-centred brotherhood (Greene, Buckman, Dandeker, & Greenberg, 2010). Returning veterans may have difficulty finding a similar culture in civilian life. The surfing culture is defined by many of the same dynamics as military culture: It is a maledominated sport in which fitness is required to manage in vigorous ocean conditions, and the "mission" of riding a wave can be an intense challenge pairing one's actions with an unpredictable environment (Fuchs & Schomer, 2007). At its core, surfing is a sport associated with feeling a "rush" or adrenaline surge by dropping down the face

of the wave (Diehm & Armatas, 2004). As a veteran participant commented, "In combat, you wait and you wait, and then you engage in an intense adrenaline rush fighting for your life. In surfing, you wait and wait; then you engage in a natural adrenaline rush riding a wave." Both surfing and military cultures have created specific languages that have many similarities. Surfers use various terms to define the intense and uncontrollable experiences of the sport, including "wiping out," "blown up," "demo'd" (demolished), "feeling stoked" and "what a rush." Military personnel use similar phrases to describe the violent, uncontrolled experience of combat.

- 2. **Creating a New Kind of Brotherhood**: We ensure that we integrate surf instructors and veterans into the program. The designated surf instructors have an extensive background in surfing, surfing instruction, and ocean safety. The Volunteers come from a variety of professions, social and ethnic backgrounds, and military service appointments. Both program participants and surf instructors have reported developing a sense of kinship or brotherhood with one another over the course of the sessions. Trust is built in the water, where participants rely on the surf instructor to support their skill acquisition and safety in a novel and variable environment. Trust is simultaneously built among participants when they begin to support one another both in the water and on the beach; some eventually make plans to surf together outside of the program. As a sense of belonging or community develops, participants identify with one another and with the sport.
- 3. Storytelling and Storymaking: Making sense of experiences in ways that create connections with others. Surf instructors have described the emergence of storytelling in the water as veterans begin to recount aspects of their injury and service in the military. This concept of storytelling is common in surf culture; surfers often spend time in the line-up waiting for waves, "talking story" about past surf adventures, or discussing personal issues at home or at work (Ford & Brown, 2006). Veterans have reported a similar experience while on deployment, during which much of their time is spent waiting or recovering from combat, and storytelling emerges as a way to process traumatic events (Adler, Castro, & McGurk, 2009). The use of narrative as a therapeutic tool in processing traumatic events is well documented; narrative functions to re-create a new life history or build an understanding and acceptance of illness or injury (Carless & Douglas, 2008; Mattingly, 1998). In one discussion session, a veteran shared, "I've never shared this openly, but my drinking is affecting my daily life. I don't go outside. Now I look forward to surfing." During the program, storytelling merges into storymaking (Clark et al., 1996), in which participants, veterans and surf instructors extend their life stories by "riding waves" in the present, providing the content for future narratives.
- 4. **Re-framing the Mission**: Promoting competence and self-efficacy. Veterans, who are trained to be effective in an environment in which actions are guided by orders and

interactions are governed by rank, may experience disrupted self-efficacy when faced with unstructured and unpredictable civilian environments (Pietrzak et al., 2009). For example, when enrolling in a class at college, directions or procedures may be unclear; the order of actions may not be clearly defined; and the behaviours of other students and staff may appear erratic. Individuals with a high sense of self-efficacy believe in their capability to successfully perform the tasks required to accomplish life goals (Benight & Bandura, 2004). In acquiring surfing skills and witnessing their personal achievement in a novel but supportive environment, program participants are able to renew their belief in their ability to achieve goals and obtain a productive role in civilian life (Kielhofner, 2008). With direction from the Staff and Volunteers, the intervention may support self-efficacy by creating opportunities for autonomy and self-reflection and by fostering trust between participants and instructors. One veteran stated, "I didn't think I would stand up [on the board], and I did. I wonder what else I can do!"

#### **Ocean Therapy Session Structure:**

The program comprises eight 3-hour sessions occurring weekly for 8 consecutive weeks. The sessions combine the active experience of surfing with focused group-processing and collaborative social participation among civilian volunteers and fellow veterans. Each group consists of a maximum of 10 participants, who are supported throughout by the qualified and SurfingGB registered Surf Instructor and the volunteers. All group members, including participants, volunteers, and staff, engage in the discussions to enhance group partnership and trust, key elements that support the success of the surf lesson and foster transition skills.

	SURF A	CTION 8 W	EEK OCEAN T	HERAPY COL	JRSE STRUCT	URE AND	CONTENT		
Session	One	Two	Three	Four	Five	Six	Seven	Eight	
Surfing Theme	Surf Safety, Parts of the Board	Paddling Out and Standing Up	The importance of Wave Selection	Ocean Currents and Conditions	Surfing Etiquette	Turning on the Board	Improve your Surfing Technique	Improve your Surfing Technique	
Resiliency Theme	Intro to Surf Action and the course	Trauma and the brain	Role Identity	Leadership and Trust	Community Building	Problem Solving	Transition	Do you feel different now compared to the start?	
Key	<b>(-</b>	The ele	ments evolve	and intertwi	ne across eac	h session o	of the Course		
Process		"Adrena	lin-Rush" "A N	lew Kind of E	rotherhood"	"Story-Tell	ing and Stor	y-	
Elements			Ma	aking""Refra	ming the Miss	sion"			
WEMWBS Monitoring	<b>✓</b>			✓				✓	
Notes	Each session is broken down into:								

A 30 minute Presentation – Setting the framework and Resiliency theme for the week and addresses pragmatic concerns such as the schedule for the day, safety information and introductions.

**A 15 minute Stretching and Warm Up Session** preparing the body for the physical demands of surfing.

A 20 minute on-beach instruction and practice session on the surfing theme of the day (Each of the techniques required to successfully paddle out, stand up, and ride a wave in are taught in the first lesson but are specifically strengthened and developed across the eight sessions).

A 90 minute Surf Lesson supported by the Instructor, volunteers and staff.

A 35 minute Focused Group Session in which participants share the sensations and emotions evoked by the experience of surfing and describe how this experience relates to the resiliency theme being addressed during that particular session. Consecutively, surf instructors reinforce participant experiences by providing candid observations of the participants' accomplishments and challenges during the surf lesson. Participants then identify a surfing skill they can improve on for the next session. Over a cup of tea and some refreshments the group reflect on how the process of learning new surfing skills and experiences while interacting with other veterans and civilians in a somewhat unpredictable environment can be applied to their current life situations.

All wetsuits, boards and other equipment are provided by Surf Action but if participants wish to use their own it is generally allowed provided it is all in good condition. All participants need to provide their own towels etc.

Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) is a positively worded 14 area measure developed by Warwick and Edinburgh Universities in 2006 in conjunction with NHS Scotland, measuring emotional and psychological wellbeing.

The Surf Instructor is Emergency 1<sup>st</sup> Aid trained and a 1<sup>st</sup> Aid Kit is available at all times.

Participants with any specific medical conditions such as asthma which may impact on their involvement must make sure that the Surf Action staff and Surf Instructor are informed.

All activities and venues are fully risk assessed.

Although primarily designed for serving military and veterans the Surf Action Ocean Therapy Course easily translates to other uniformed services such as the Blue Light Emergency Services which also have a rank structure, valued ethos, sense of identity and strong workforce camaraderie and which work in a stressful environment.

#### The Physiological Benefits of Ocean Therapy

Thomson Koon, J. Boddy, K. Stein, K. Whear, R. Barton, J. and Depledge, M.H. 2011.
 Does Participating in Physical Activity in Outdoor Natural Environments Have a Greater

Effect on Physical and Mental Well-being than Physical Activity Indoors? A Systematic Review. Environmental Science and Technology DOI: 10.1021/es102947t

- HM Government "No Health without Mental Health", A Cross Government Mental Health Outcomes Strategy for people of all ages. (2011)
- MIND Report "Ecotherapy for Mental Wellbeing, Resilience and Recovery" (2013) (endorsed by Public Health England)
- House of Commons Health Select Committee Report "Impact of Physical Activity on Diet and Health" (March 2015) (The Chair of the Committee, said "The extraordinary benefits of exercise in improving physical and mental health should be made clear and accessible to everyone, whatever their current level of fitness. The committee calls on the NHS, Local Authorities and the government to work together to prioritise prevention and public health and we have set out achievable recommendations for action which could help to transform people's lives and wellbeing.")

There is overwhelming scientific evidence that being physically active leads to a healthier and happier life. Taking care of our body and getting fit can also boost self-esteem and self-confidence. The 'Blue Gym' is the concept of using our stunning natural ocean, coastal and beach environments as a resource for pursuing human health and wellbeing through surfing and other strenuous water based activities.

Surf Action's Ocean Therapy Course uses the concept of the 'Blue Gym' and offers the opportunity to those who engage to experience the outdoor classroom environment and an exhilarating physical, emotional and social experience which can act as the foundation for improvement in health and wellbeing.

- Taking exercise, especially vigorous exercise like surfing, in good natural light has long been known to be beneficial. When we exercise, hormones called ENDORPHINS are released by the PITUITARY GLAND, creating a sense of well-being.
- Exercise also increases the flow of oxygen throughout the body, stimulates the nervous system and affects levels of brain chemicals such as SEROTONIN which in turn relieve tension, induce calm and make it easier to handle anxiety and stress. SEROTONIN is a neurotransmitter linked to feelings of well-being and levels of it are artificially raised by some anti-depressants. Indeed research suggests that the benefits of regular

exercise can be very powerful and comparable to those of an anti-depressant for mild to moderate depression.

- MELATONIN is a hormone closely associated with regulating our sleep. In prescribed form it is used as a sleeping aid. When dusk falls, SEROTONIN naturally converts into MELATONIN, allowing us to drop off to sleep more easily. If we have built up a good supply of SEROTONIN during daylight hours by taking vigorous exercise such as surfing, this conversion can take place more efficiently.
- PTSD is all about the fight/flight response and high states of emotional arousal. When our body prepares for fight or flight or is in a high state of emotional arousal it is preparing for vigorous physical activity and a whole host of stress-related hormones like ADRENALIN and CORTISOL are produced. The constant high arousal that is a symptom of PTSD and the unpleasant symptoms of extreme anxiety and panic attacks are caused when hormones such as ADRENALIN and CORTISOL are not used up by fighting or fleeing. Vigorous physical activity like surfing uses up the ADRENALIN and CORTISOL thus allowing the system to calm down.
- Surfing is a very social activity and laughter boosts the immune system by decreasing stress hormones and speeding up the rate of flow through the lymphatic system by up to a factor of 15 thus increasing immune cell production and infection fighting antibodies. Like strenuous exercise, laughter triggers the release of endorphins, the body's natural feel-good chemicals. The endorphins can also temporarily relieve pain.

Surfing is not a cure but it is a focus, a passion and an activity that requires determination, perseverance and above all the aspiration to succeed

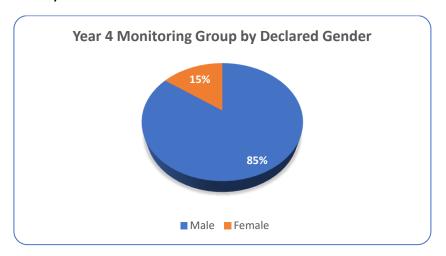
#### **YEAR 4 VETERANS' PROFILE**

#### **ETHNIC BACKGROUND**

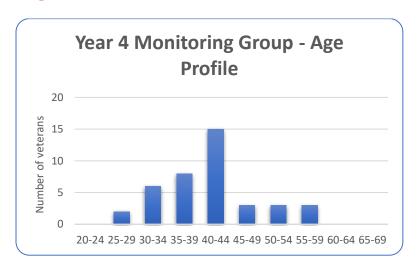
Of the year 4 monitoring group who declared it, 98% were white and 2% mixed ethnic background. This is consistent with the demographic of the county as a whole, in which 98.7% of the population define themselves as White (ONS, 2008).

#### **GENDER**

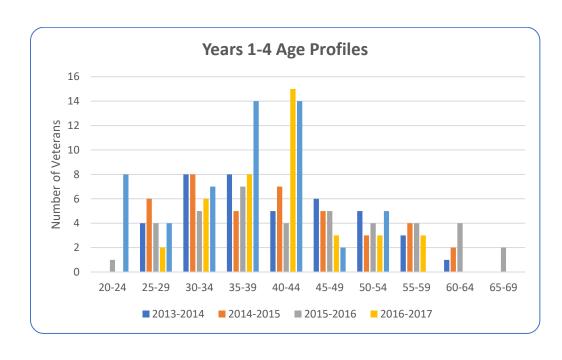
Most of the year 4 veterans were male however there was a rise in the number of female veterans over previous years.



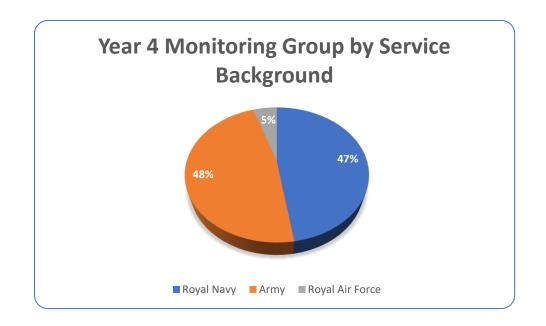
#### **AGE**

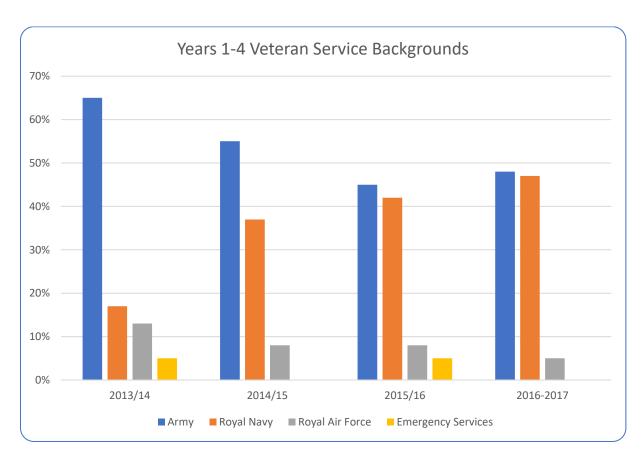


Veteran Age Range	2013- 2014	2014- 2015	2015- 2016	2016- 2017
20-24	0	0	1	0
25-29	4	6	4	2
30-34	8	8	5	6
35-39	8	5	7	8
40-44	5	7	4	15
45-49	6	5	5	3
50-54	5	3	4	3
55-59	3	4	4	3
60-64	1	2	4	0
65-69			2	0
Total	40	40	40	40

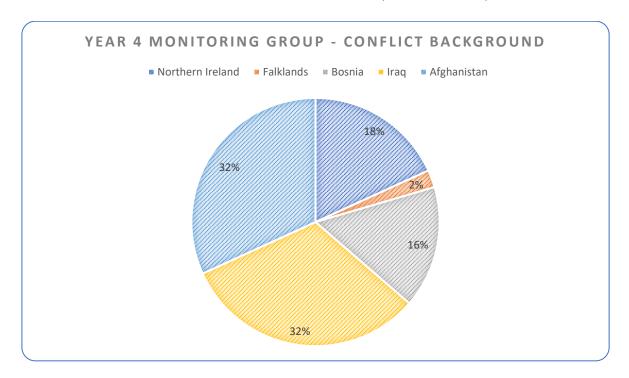


#### **SERVICE BACKGROUND**





## VETERAN CONFLICT EXPERIENCES (Where declared)







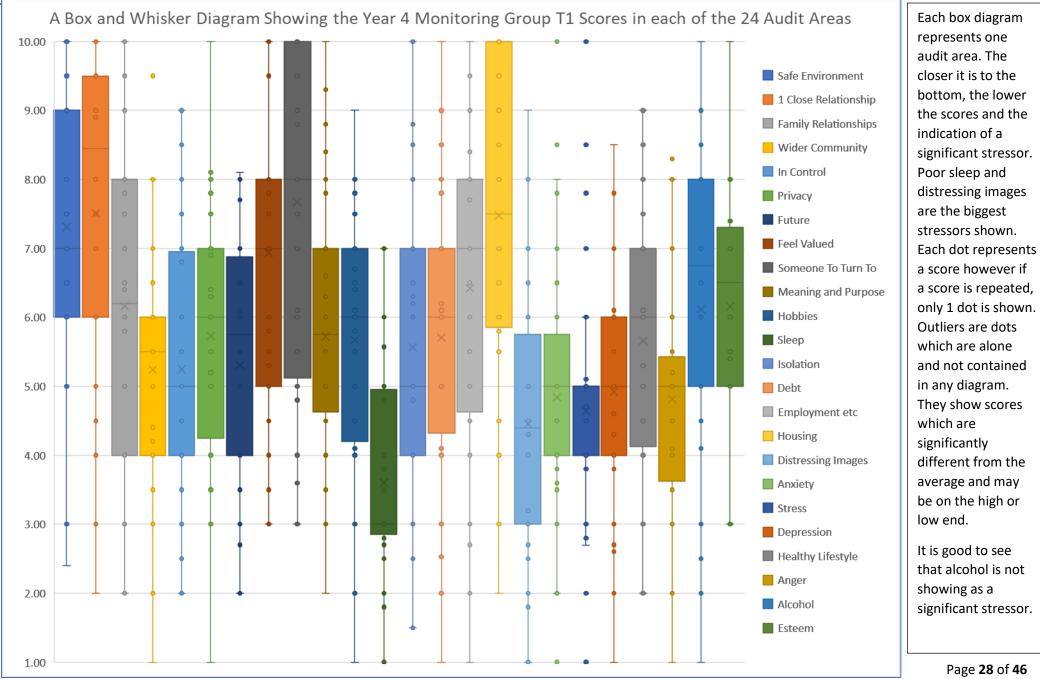
#### **EMOTIONAL NEEDS AUDIT RESULTS AND FINDINGS**

The anonymised veterans' 'Wheel of Life' scores on initial engagement with the Surf Action Ocean Therapy Course were used as the baseline for measurement (T1) with n=40 and then the Mean score, Standard Deviation ( $\sigma$ ) and Variance ( $\sigma^2$ ) were calculated across each of the 24 audit categories and each veteran. Their final 'Wheel of Life' scores after 3 months were then taken in the 24 audit categories (T2) and an Intervention Mean score calculated in each category and each veteran along with the  $\sigma$  and  $\sigma^2$ . The initial and intervention Mean,  $\sigma$  and  $\sigma^2$  allowed for the better interpretation of the data particularly in terms of compactness and consistency. All data was entered onto a Surf Action designed spreadsheet so both individual data and group data was preserved always. This also allowed the generation of the necessary analytical data diagrams.

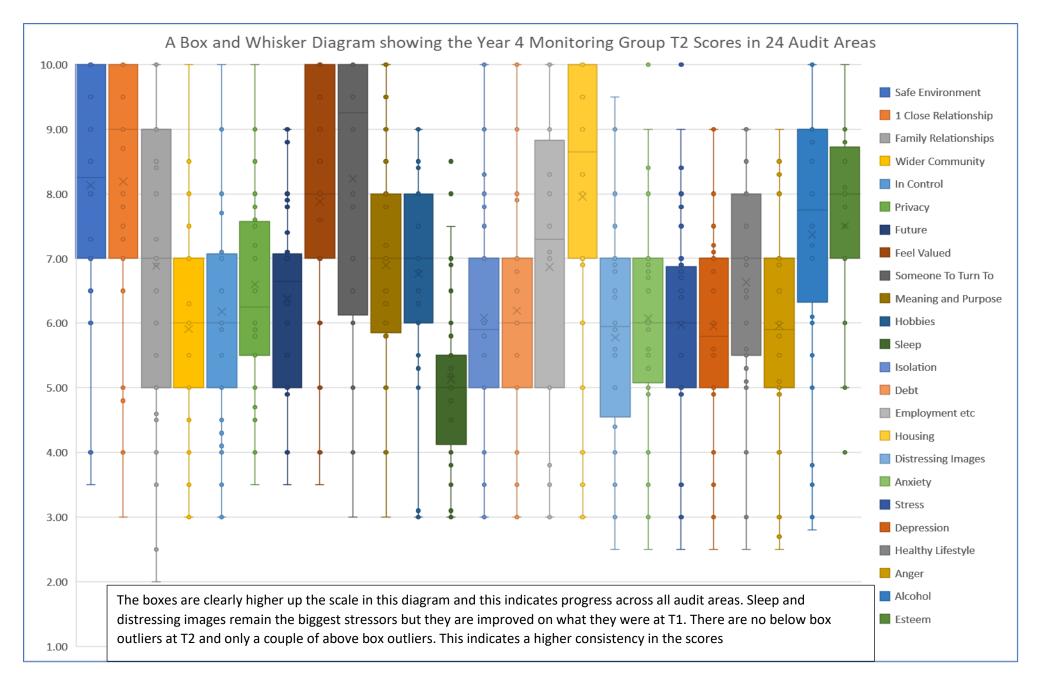
Most of the statistical analysis requires the data to be normally distributed so the data was checked to ensure this. Kurtosis and Skew were measured across all the data. If the measured values fell between -2 and +2 this was accepted as a good indication of normality. The extensive use of box and whisker diagrams also allowed for visual indications of normality. Some of the analysis can also be highly susceptible to 'outliers' in the data so this was also checked. Where outliers were identified the effect of inclusion and exclusion was examined. It was determined that no outliers needed to be excluded. This was confirmed by scatter diagrams. Correlations were calculated using Pearson Coefficients of Determination and Correlation. This allowed the calculation of statistical significance.

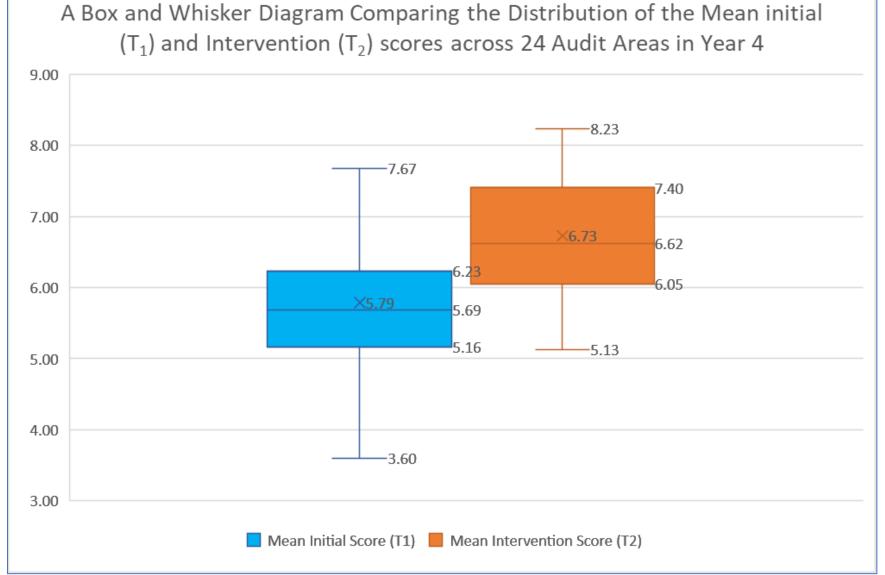
														Year 4	Initial So	ores													$\neg$
Data Line Number	Safe nvironme nt	1 Close elationshi p	Family elationshi ps	Wider	n Control	Privacy	Future	Feel Valued	Someone To Turn To	Meaning and Purpose	Hobbies	Sleep	solation	Debt	mployme nt etc	Housing	istressing Images	Anxiety	Stress	epression	Healthy Lifestyle	Anger	Alcohol	Esteem	Wheel	Wheel	Standard Deviation o	Variance	Skew
Veteran 1	2.40	9.00	2.00	2.00	2.00	1.00	6.00	5.00	3.00	8.80	6.10	3.00	3.00	6.20	8.40	10.00	1.00	10.00	10.00	5.00	6.00	5.00	5.00	10.00	129.90	5.41	3.03	9.18	0.22
Veteran 2	9.00	9.00	6.50	4.40	5.00	6.30	6.10	7.00	9.00	9.30	5.00	5.00	7.00	6.10	5.00	8.50	5.00	5.00	5.00	5.00	6.10	4.10	7.00	7.00	152.40	6.35	1.58	2.49	0.61
Veteran 3	6.00	4.00	6.40	4.20	2.50	4.00	3.00	5.00	6.10	4.00	4.00	2.50	4.00	4.00	7.00	6.00	2.50	3.80	3.80	3.80	3.00	3.00	4.10	5.50	102.20	4.26	1.27	1.61	0.58
Veteran 4	9.00	9.00	9.00	7.00	9.00	6.40	7.00	8.00	10.00	6.60	4.10	3.00	6.20	5.00	8.00	10.00	4.30	5.00	5.00	5.00	5.00	4.00	5.00	7.00	157.60	6.57	2.01	4.06	0.18
Veteran 5	9.50	9.50	9.50	9.50	8.00	8.10	8.10	9.50	10.00	8.00	6.40	4.80	8.00	7.80	8.00	10.00	6.00	7.80	7.80	7.80	6.00	5.00	5.00	8.00	188.10	7.84	1.55	2.40	-0.55
Veteran 6	9.50	9.50	5.80	6.00	4.00	4.00	4.00	10.00	10.00	4.00	3.00	3.00	6.30	5.00	8.00	10.00	8.00	6.00	4.70	5.50	4.50	8.30	2.50	7.40	149.00	6.21	2.40	5.76	0.28
Veteran 7	7.00	10.00	3.00	3.00	3.00	10.00	5.00	7.00	10.00	3.50	7.00	7.00	10.00	10.00	7.70	10.00	3.00	2.00	2.00	3.00	8.00	8.00	8.00	3.00	150.20	6.26	2.93	8.61	-0.09
Veteran 8	3.00	3.00	3.00	3.00	2.00	3.50	2.70	3.00	3.00	3.00	3.00	1.80	1.50	2.00	2.00	3.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	55.50	2.31	0.78	0.61	-0.46
Veteran 9	9.50	9.50	6.00	8.00	6.00	4.00	6.00	5.80	10.00	5.50	5.50	3.00	8.50	4.10	8.00	10.00	3.00	6.50	7.00	7.00	5.00	5.00	5.00	7.00	154.90	6.45	2.02	4.09	0.22
Veteran 10	3.00	4.50	4.00	4.00	2.00	3.00	2.00	3.00	5.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	65.50	2.73	0.88	0.77	1.11
Veteran 11	10.00	7.00	5.00	5.00	5.00	7.80	3.00	7.00	5.00	3.00	8.00	7.00	7.00	1.00	5.00	9.00	9.00	5.00	3.00	5.00	3.00	3.00	9.00	3.00	134.80	5.62	2.39	5.70	0.09
Veteran 12	7.00	10.00	10.00	1.00	2.00	5.50	2.00	7.80	10.00	7.00	1.00	1.00	1.50	5.00	1.00	4.50	1.80	1.00	1.00	3.00	3.00	5.00	1.00	3.00	95.10	3.96	3.10	9.58	0.83
Veteran 13	9.50	9.50	8.00	7.00	6.80	6.90	7.00	10.00	10.00	7.00	5.00	1.00	5.00	5.00	8.00	9.50	6.50	5.00	5.00	7.00	4.50	4.50	4.50	8.00	160.20	6.68	2.16	4.68	-0.39
Veteran 14	9.50	9.50	9.50	6.00	4.00	4.00	6.00	10.00	10.00	5.00	4.00	3.00	7.00	5.00	7.00	10.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	6.00	148.50	6.19	2.27	5.16	0.63
Veteran 15	8.00	10.00	5.00	5.00	5.00	5.00	5.00	8.00	10.00	6.00	3.00	3.00	5.00	5.00	7.00	9.50	7.00	5.00	5.00	6.10	3.00	3.00	3.00	6.00	137.60	5.73	2.11	4.44	0.62
Veteran 16	7.00	8.00	8.00	5.00	5.00	5.00	7.00	10.00	10.00	5.00	3.00	3.00	5.00	3.00	7.00	10.00	3.00	4.00	4.00	6.00	3.00	3.00	3.00	7.00	134.00	5.58	2.34	5.49	0.58
Veteran 17	9.00	10.00	7.80	6.00	8.00	6.00	8.00	10.00	10.00	6.00	5.00	5.00	7.00	5.00	9.00	10.00	5.00	5.00	5.00	7.00	5.00	7.00	5.00	7.00	167.80	6.99	1.84	3.40	0.44
Veteran 18	9.00	8.90	2.00	7.00	7.00	7.00	8.00	7.00	8.00	8.40	9.00	5.00	6.00	8.00	9.00	7.00	5.00	5.00	5.00	6.00	7.00	7.00	7.00	7.00	165.30	6.89	1.62	2.64	-1.05
Veteran 19	6.00	7.00	3.00	5.00	5.00	3.00	6.00	5.00	5.00	5.00	6.00	3.80	5.00	7.00	7.00	7.00	3.00	4.00	4.00	4.00	6.00	6.00	10.00	7.00	129.80	5.41	1.61	2.60	0.67
Veteran 20	9.50	9.50	5.00	8.00	8.50	8.00	5.00	8.00	9.50	5.00	8.00	5.57	4.00	8.00	9.50	10.00	8.00	5.00	5.00	5.00	8.50	5.00	8.00	5.00	170.57	7.11	1.92	3.68	-0.12
Veteran 21	9.00	9.00	9.00	6.00	7.00	7.00	7.00	10.00	10.00	10.00	5.00	5.00	4.00	7.00	9.00	9.00	6.00	6.00	6.00	7.00	7.00	5.00	5.00	7.00	172.00	7.17	1.77	3.14	0.16
Veteran 22	9.00	9.00	9.00	8.00	9.00	7.00	6.00	10.00	10.00	7.00	4.50	3.00	6.00	9.00	9.00	9.00	4.00	4.00	4.00	3.00	6.00	3.00	5.00	8.00	161.50	6.73	2.37	5.60	-0.26
Veteran 23	5.00	4.00	4.00	3.50	3.50	3.50	2.70	3.50	4.00	3.00	5.80	2.50	2.50	2.53	3.00	3.00	3.00	4.00	4.00	4.00	4.50	4.50	6.00	5.00	91.03	3.79	0.96	0.92	0.68
Veteran 24	8.00	8.00	8.00	6.00	8.00	8.00	7.00	8.00	8.00	7.00	7.00	5.00	6.50	7.00	7.00	7.00	4.50	6.50	5.00	5.00	6.00	5.00	8.00	8.00	163.50	6.81	1.17	1.37	-0.62
Veteran 25	6.50	4.00	5.00	4.00	4.00	6.00	5.50	4.00	6.00	4.50	6.70	2.70	4.00	4.00	4.00	5.80	2.70	3.50	4.00	4.30	5.30	4.00	5.00	5.50	111.00	4.63	1.07	1.15	0.22
Veteran 26	5.00	4.00	4.00	6.00	5.00	5.00	5.00	3.50	3.60	3.00	6.00	4.00	3.00	6.00	5.50	5.50	3.20	3.00	2.80	2.60	4.00	3.00	3.00	5.00	100.70	4.20	1.12	1.25	0.25
Veteran 27	5.00	5.00	6.00	6.00	6.00	5.00	6.00	4.50	5.50	6.00	6.50	3.50	4.00	4.00	5.50	4.50	4.50	6.00	6.00	6.00	9.00	5.50	7.00	8.00	135.00	5.63	1.22	1.48	0.80
Veteran 28	7.00	6.00	5.00	6.00	4.50	6.00	4.00	5.00	5.00	5.00	7.00	3.00	5.00	6.00	4.50	6.00	4.00	5.00	5.00	5.00	6.00	5.00	6.50	6.00	127.50	5.31	0.94	0.89	-0.25
Veteran 29	7.50	7.50	7.50	6.50	5.00	6.00	6.00	7.00	7.00	7.00	6.00	4.00	5.00	5.00	7.00	5.80	4.30	5.00	5.10	5.00	7.50	5.20	9.00	7.00	147.90	6.16	1.22	1.50	0.21
Veteran 30	7.00	7.00	8.00	6.00	7.00	6.00	6.50	7.00	8.00	5.00	6.00	2.80	5.00	7.00	7.00	7.00	5.00	5.00	5.00	5.00	8.00	8.00	8.00	5.00	151.30	6.30	1.33	1.76	-0.61
Veteran 31	7.00	7.00	7.00	6.00	6.00	6.00	7.00	7.50	7.00	6.00	7.00	4.00	5.00	6.00	7.00	7.00	4.00	5.00	5.00	5.00	7.50	5.00	9.00	7.00	150.00	6.25	1.19	1.42	-0.11
Veteran 32	7.00	7.00	7.00	5.00	5.00	5.00	5.00	6.00	6.00	5.00	6.00	3.00	5.00	3.00	7.00	7.00	4.50	4.50	4.50	5.00	9.00	5.00	8.50	5.00	135.00	5.63	1.45	2.11	0.48
Veteran 33	7.00	4.00	4.00	4.00	4.00	6.00	4.00	4.00	5.00	4.00	6.00	2.50	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	7.00	5.00	8.00	8.00	119.50	4.98	1.36	1.84	0.87
Veteran 34	6.00	6.00	4.00	4.00	4.00	5.20	4.00	5.30	4.80	5.00	7.00	4.00	4.80	6.00	4.00	6.50	4.00	5.00	5.00	5.00	7.00	5.00	8.50	5.40	125.50	5.23	1.15	1.32	1.07
Veteran 35	7.00	7.00	7.00	6.00	6.00	7.00	6.00	7.00	7.50	6.30	8.00	4.80	6.00	6.00	4.50	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	158.10	6.59	0.78	0.61	-1.07
Veteran 36	10.00	10.00	10.00	5.50	7.50	7.50	7.70	10.00	10.00	7.80	7.80	0.80	10.00	9.00	9.00	10.00	6.00	8.00	4.50	4.60	8.00	4.00	9.00	8.00	184.70	7.70	2.34	5.47	-1.26
Veteran 37	5.00	9.00	8.00	3.50	4.00	4.00	3.50	5.50	8.80	7.00	7.50	3.00	8.80	7.00	2.70	2.00	2.70	3.60	2.70	2.70	3.00	3.50	7.00	5.50	120.00	5.00	2.25	5.06	0.52
Veteran 38	8.00	9.50	7.50	5.50	5.50	7.50	3.50	7.50	10.00	6.00	8.00	6.00	10.00	8.50	6.50	8.00	4.50	8.50	8.50	8.50	6.00	8.00	8.00	6.00	175.50	7.31	1.63	2.66	-0.43
Veteran 39	9.00	9.00	6.00	4.00	5.00	6.00	4.00	8.00	7.00	7.00	8.00	5.00	7.00	7.00	6.00	8.00	7.00	5.00	5.00	4.00	9.00	6.00	7.00	8.00	157.00	6.54	1.55	2.41	-0.08
Veteran 40	5.00	2.00	2.00	2.00	4.00	7.00	5.00	8.00	10.00	5.00	2.00	3.00	7.00	9.00	10.00	10.00	5.00	1.00	1.00	4.00	4.00	1.00	9.00	3.00	119.00	4.96	3.02	9.12	0.41
41	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total		-		<del>                                     </del>
42	292.40	300.40	246.50	209.60	209.80	229.20	212.30	277.40	306.80	228.70	226.90	144.07	222.60	228.23	256.80	299.10	178.00	193.70	185.40	196.90	226.40	192.60	244.60	246.30	5554.70		-		├
43	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean		-		├
44	7.31	7.51	6.16	5.24	5.25	5.73	5.31	6.94	7.67	5.72	5.67	3.60	5.57	5.71	6.42	7.48	4.45	4.84	4.64	4.92	5.66	4.82	6.12	6.16	5.15		1		<del>                                     </del>
45	σ	σ 2.20	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ 2.20	σ	σ	σ	σ	σ	σ	σ	σ 2.24	σ	σ		-		-
46	2.00	2.29	2.31	1.75	1.94	1.74	1.68	2.18 Ckow	2.37	1.83	1.87	1.45	2.12	2.09	2.20	2.40	1.87	1.90	1.85	1.57	1.97	1.70	2.31	1.73	29.60		-		<del></del>
47	Skew -0.69	Skew	-0.15	-0.12	Skew 0.17	-0.25	-0.26	-0.13	-0.49	Skew 0.20	-0.53	Skew 0.38	Skew 0.32	-0.13	-0.60	-0.63	Skew 0.40	Skew 0.14	Skew	-0.10	-0.10	Skew 0.18	-0.39	-0.42	/question		-		<del>                                     </del>
48	-0.69	-0.79	-0.15	-0.12	0.1/	-0.25	-U.2b	-0.13	-0.49	0.20	-0.53	0.38	0.32	-0.13	-0.60	-0.63	U.4U	0.14	0.31	-0.10	-0.10	0.18	-0.39	-0.42	5.79		<u></u>		1

													Inter	vention Da	ata														
Data Line Number	Safe Environme nt	1 Close Relationshi p	Family Relationshi ps	Wider	In Control	Privacy	Future	Feel Valued	Someone To Turn To	Meaning and Purpose	Hobbies	Sleep	Isolation	Debt	Employme nt etc	Housing	Distressing Images	Anxiety	Stress	Depression	Healthy Lifestyle	Anger	Alcohol	Esteem	Wheel	Wheel	Standard Deviation o	Variance	Skew
Veteran 1	4	10	5	3	4.1	4.7	7.4	7.6	5	10	9	5	5	5	5	10	4.4	10	10	5	6.9	6.9	5.5	10	158.5	6.60	2.33	5.44	0.43
Veteran 2	9.5	9.5	7	4	6	6	8	7	9.5	9	8.4	5.3	7.8	7.9	8	8.3	5.9	5.9	6	5.6	6.4	4	8	8.5	171.5	7.15	1.60	2.55	-0.29
Veteran 3	7	5	7	5.5	5.9	5.9	5	7	7.8	7	7	5.2	5	5	7.5	6.9	3.5	5	5	5	5.6	4.9	6.1	7	141.8	5.91	1.07	1.15	-0.04
Veteran 4	10	10	10	7	10	7.6	7.9	10	10	8	7.5	5.8	7	5.5	7.1	10	5	6.7	6.8	6.8	7	7	7	8.1	187.8	7.83	1.56	2.42	0.26
Veteran 5	10	10	10	10	9	9	9	10	10	10	7	6.5	9	9	9	10	7	7	7.5	6.8	7.5	7	7.5	8.8	206.6	8.61	1.26	1.59	-0.31
Veteran 6	10	10	6	5	5	5.5	5	10	10	5.8	5.5	5.5	8.3	5.5	9	10	9	5.3	5	5	5.5	8	3.5	8	165.4	6.89	2.09	4.38	0.40
Veteran 7	8	10	4	4	4	10	6	7	10	5	7	7.5	7.5	10	10	10	5	5	5	5	8	8.5	8.8	5	170.3	7.10	2.18	4.74	0.05
Veteran 8	4	4	4	4	3.5	3.5	3.5	3.5	4	4	3.1	3.1	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2.7	2.8	4	78.2	3.26	0.57	0.32	0.09
Veteran 9	10	10	6.5	8.5	7	5	7	7	10	6.3	6.3	5	9	5	9	10	4	5.5	5.5	5.5	5.3	5	5	8	165.4	6.89	1.90	3.62	0.48
Veteran 10	3.5	5	3.5	3.5	3	4	4	4	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	4	4	4	3	4	84.5	3.52	0.51	0.26	0.92
Veteran 11	10	7.8	6.9	5	6	9	5	8	6	5	8.5	7	7	3	5	9.5	9.5	8	7.8	7.1	3	3	9	5	161.1	6.71	2.07	4.29	-0.32
Veteran 12	7	10	10	3	3	5.8	4.9	9	10	6.3	3	3	3	5	5	5	3	3	3	3	3	5.5	3.8	7.8	125.1	5.21	2.46	6.07	0.88
Veteran 13	10	10	8.4	8	7	7	7.1	10	10	7.2	6.5	4	5	5	8	10	6.4	6.5	6.4	7.2	5.1	5.1	5.5	9	174.4	7.27	1.81	3.29	0.17
Veteran 14	10	10	10	6	6	5	7	10	10	6	6	4.8	7	6	8.3	10	6.8	7	8.4	7.5	6.5	5.5	7	8	178.8	7.45	1.71	2.93	0.39
Veteran 15	9	10	7	6	6.5	6	7	9.5	10	6	5	4.5	5	5	7	10	7	6	6	7	5	5	6	8	163.5	6.81	1.71	2.91	0.75
Veteran 16	9	9	9	6	5.5	6	7	10	10	7	5	5	6	4	7.5	10	4	5.5	5.5	7	6	5.8	7	8	164.8	6.87	1.80	3.25	0.39
Veteran 17	9	10	8	7	8	7.2	8.8	10	10	9	6.8	6.9	8	6.5	9	10	7.5	8.4	8.4	9	8.5	7	7.2	8	198.2	8.26	1.08	1.17	0.18
Veteran 18	10	9	2.5	7	6	9	9	8	8	9	9	5	7	9	9	10	6	6	6	6	7	8.3	9	8	182.8	7.62	1.77	3.12	-1.01
Veteran 19	6	7.5	5	6	7	6	6	7	6	6	6	5	5.5	7	8	7	5	6	6	6	7	7	10	9	157	6.54	1.18	1.39	1.27
Veteran 20	10	9.5	5.5	8	9	8.5	5	9	10	6	8	5.5	7	5	8	10	9	6	6	6	8.5	5.5	8.5	6	179.5	7.48	1.70	2.88	0.00
Veteran 21	9	9	9	7	7.7	7.8	7.8	10	10	10	5	5	5.8	8	9	9.5	7	7	7	8	8	6	6	8.5	187.1	7.80	1.48	2.19	-0.29
Veteran 22	10	10	10	8	9	7.5	7.1	10	10	7.8	5.3	5	7	10	10	10	5.5	5	5	5	7.5	5	7	9	185.7	7.74	1.98	3.93	-0.19
Veteran 23	6.5	6.5	5	5	5	5	4	4	7	5	7	3.5	3.5	3.5	3.5	4	4	5.5	5.5	5.5	5.5	5	7.5	7	123.5	5.15	1.23	1.51	0.32
Veteran 24	8.5	8.7	9	7	9	9	7	9	9	8	8	8	7	7	7	7	5	7	5.5	6	7	6	9	9	182.7	7.61	1.21	1.47	-0.41
Veteran 25	7	5	5	5	5	7	6.3	5	6.5	7	7	4	4	5	3.8	6	4	4.9	4.9	4.9	7	7	7	7	135.3	5.64	1.15	1.32	-0.03
Veteran 26	6	5	4.5	6.3	6	6	6	6	6	6	7	5	4	6	7	7	6.5	6.5	6.5	6	6.5	5	7	6	143.8	5.99	0.77	0.60	-0.91
Veteran 27	8	7	7	6	5.5	5.5	5.5	6	7	7	7	5	5	5	5	7	6.5	6.8	6.7	6.5	9	7	8	9	158	6.58	1.14	1.30	0.43
Veteran 28	8	7	5	6	5	7	6	6	6	6	8	4.8	5	6	5	6	5.6	5.6	5	5	7	6	7	7	145	6.04	0.93	0.86	0.59
Veteran 29	9	10	10	7	8	7	7	10	10	8	7	6	5	5	5	7	7	8	8	8	8	6.5	9	8	183.5	7.65	1.50	2.26	-0.07
Veteran 30	8	8	8.5	7.5	7.1	7	7	7	9	7	7	5	6	7	8	8	6.9	6.9	6.9	5	9	8	9	7	175.8	7.33	1.04	1.08	-0.42
Veteran 31	7.3	7.3	7.3	6	6	6.5	7	8.5	8	6.5	7	5	5	6	7	7	5	6	6	6	7	6	9	8	160.4	6.68	1.03	1.07	0.29
Veteran 32	8	7	7	5	6	5	5	7	6	5	7	4	5	5	7	7	5	5	5	5	9	5.5	9	6	145.5	6.06	1.33	1.76	0.80
Veteran 33	8	4.8	4.6	4.5	4.3	6	5	5	5	5	7	3.8	5	5	5	5	6	6	6	8	8	5	8	9	139	5.79	1.40	1.97	0.92
Veteran 34	7	7	5	5.5	5.5	5.5	5	6	5	5	7	5	5	6.8	5	7	5.5	5.5	5.5	5.5	8	8	8	7	145.3	6.05	1.05	1.10	0.67
Veteran 35	8	8	7	7	7	7	7	8	8	8	9	5	7	7	5	7	8	8	8	8	8.5	8.5	9	7.5	180.5	7.52	0.98	0.97	-1.11
Veteran 36	10	10	10	7	9	9	9	10	10	8.5	8.5	8.5	10	9	9	9.5	7	8	5	5	8	5	10	9	204	8.50	1.58	2.50	-1.24
Veteran 37	6	9	9	5	4.5	4.5	5	7	9.5	9.5	9	4	9	9	3	3	3.5	4	3.5	3.5	4	5	8	7	144.5	6.02	2.34	5.49	0.30
Veteran 38	9	10	9	7	6	8	6	9	10	7	9	7	10	9	8	9	6	9	9	9	7	9	9	8	199	8.29	1.24	1.54	-0.60
Veteran 39	9	9	6	5	6	6	7	9	8	9	8	5	7	7	8	9	7	6.5	6.5	5.5	9	6.5	8	9	176	7.33	1.34	1.81	-0.13
Veteran 40	7	3	2	3	4	7	6	9	10	5	3	4	3	7	9	10	6	3	3	5.5	4	2.5	10	4	130	5.42	2.58	6.68	0.60
41	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total			ــــــ	
42	325.3	327.6	275.2	236.3	247.1	264	255.3	315.1	329.3	275.9	270.4	205.2	243.4	247.7	274.7	318.2	231	243	238.8	237.9	265.3	238.2	294.7	300.2	6459.8			—	
43	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean			ــــــ	
44	8.13	8.19	6.88	5.91	6.18	6.60	6.38	7.88	8.23	6.90	6.76	5.13	6.09	6.19	6.87	7.96	5.78	6.08	5.97	5.95	6.63	5.96	7.37	7.51	161.50			—	
45	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ			—	
46	1.77	2.02	2.26	1.58	1.75	1.52	1.40	1.91	2.05	1.71	1.67	1.26	1.90	1.87	2.03	2.19	1.64	1.59	1.63	1.46	1.75	1.56	1.85	1.49	27.99			<del></del>	
47	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	Skew	/question			ـــــ	
48	-0.96	-0.94	-0.20	0.08	0.27	0.27	0.06	-0.60	-0.84	0.09	-0.85	0.72	0.23	0.34	-0.45	-0.81	0.18	-0.04	0.12	0.04	-0.71	-0.12	-0.88	-0.98	6.73	<u> </u>		<u> </u>	

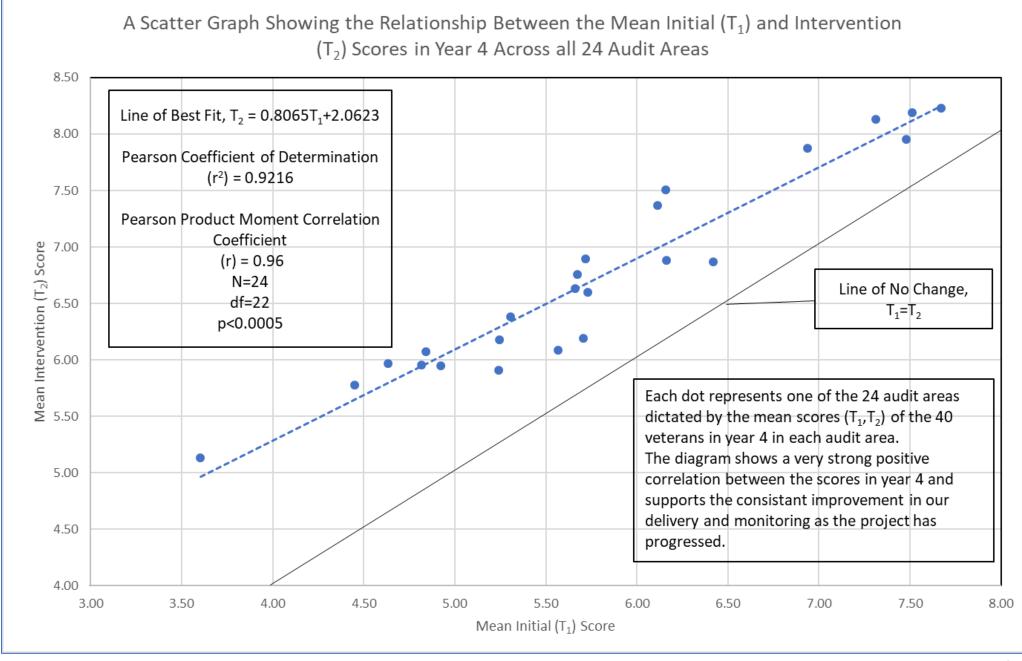


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This diagram summarises the previous two and compares the data in line 44 of both data sheets. It shows the T2 scores have a smaller range and are more compact. The mean and median have increased. It is all indicative of improved wellbeing at T2.

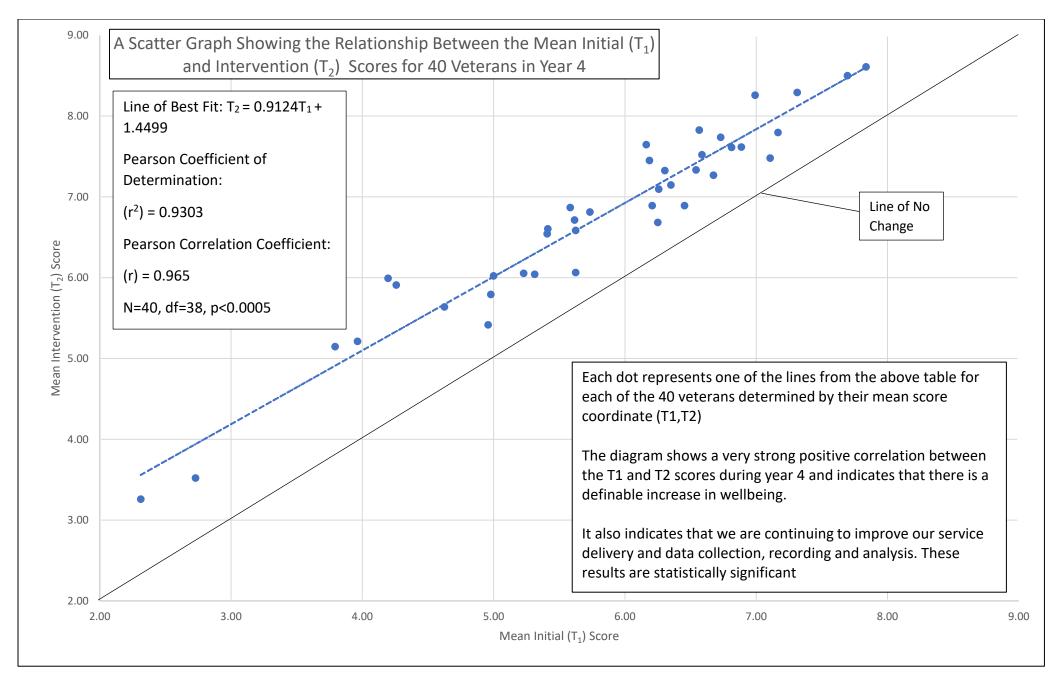


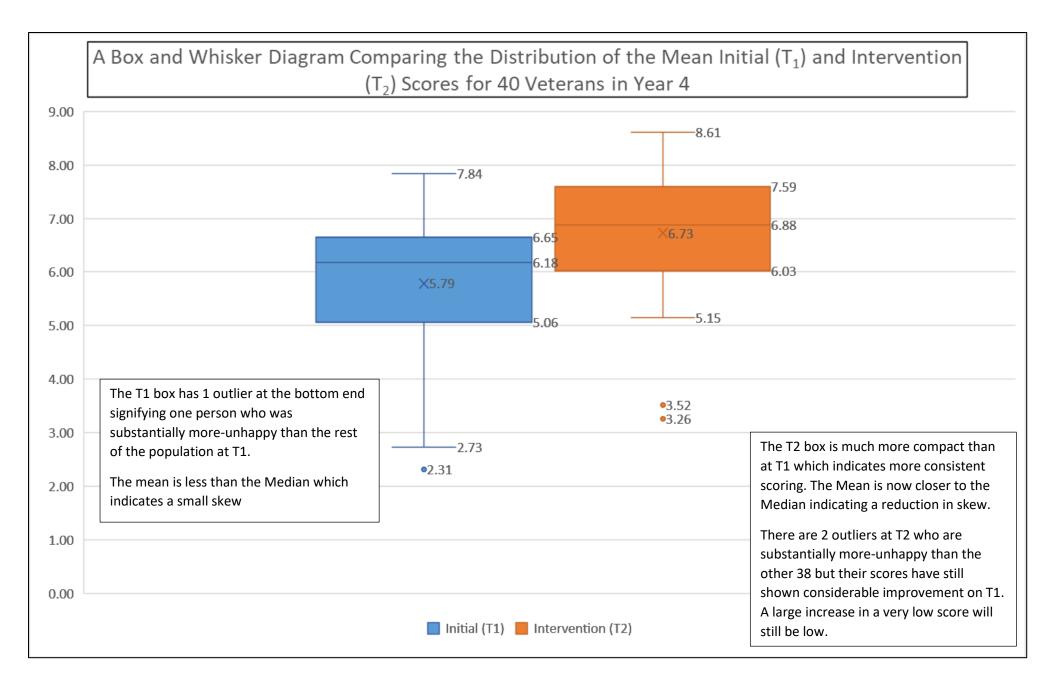
% Change between T1 and T2											
	Mean Initial Score (T1)	Mean Intervention Score (T2)	% Increase in T1 Score								
Safe Environment	7.31	8.13	11.25								
1 Close Relationship	7.51	8.19	9.05								
Family Relationships	6.16	6.88	11.64								
Wider Community	5.24	5.91	12.74								
In Control	5.25	6.18	17.78								
Privacy	5.73	6.60	15.18								
Future	5.31	6.38	20.25								
Feel Valued	6.94	7.88	13.59								
Someone To Turn To	7.67	8.23	7.33								
Meaning and Purpose	5.72	6.90	20.64								
Hobbies	5.67	6.76	19.17								
Sleep	3.60	5.13	42.43								
Isolation	5.57	6.09	9.34								
Debt	5.71	6.19	8.53								
Employment etc	6.42	6.87	6.97								
Housing	7.48	7.96	6.39								
Distressing Images	4.45	5.78	29.78								
Anxiety	4.84	6.08	25.45								
Stress	4.64	5.97	28.80								
Depression	4.92	5.95	20.82								
Healthy Lifestyle	5.66	6.63	17.18								
Anger	4.82	5.96	23.68								
Alcohol	6.12	7.37	20.48								
Esteem	6.16	7.51	21.88								
Mean % I	ncrease between T1	and T2	17.52								

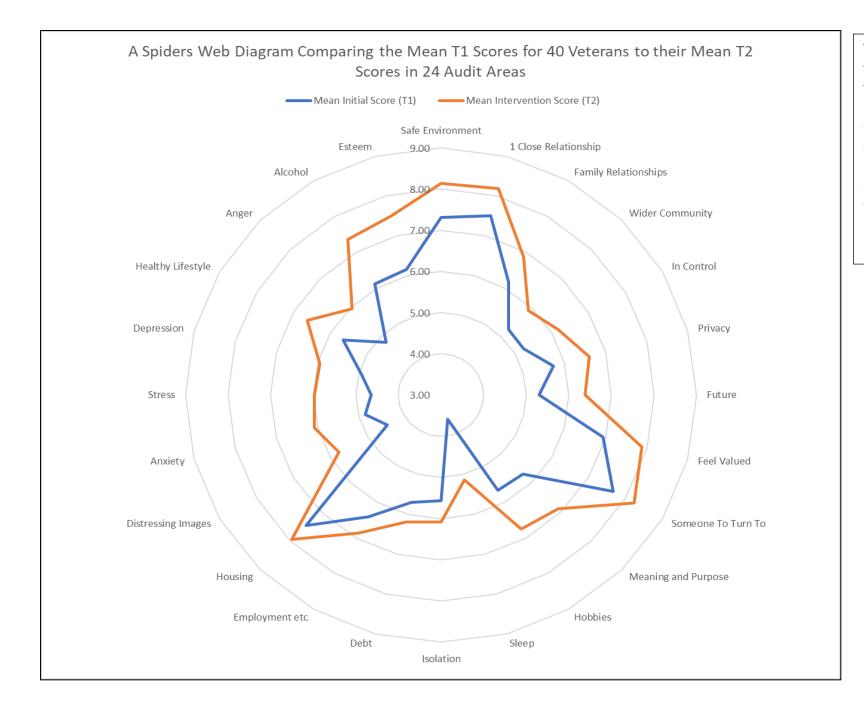
This is the data set for the 2 diagrams above and shows the % score increase in each audit area. They are all positive with the biggest increases in the main stressor areas. The average increase was 17.5%

T1 and T2 Scores for each of 40 Veterans in year 4										
	-	, ,	%							
l			Increase							
Veteran	Mean T1 Score	Mean T2 Score	in T1							
			Score							
1	5.41	6.60	22.02							
2	6.35	7.15	12.53							
3	4.26	5.91	38.75							
4	6.57	7.83	19.16							
5	7.84	8.61	9.84							
6	6.21	6.89	11.01							
7	6.26	7.10	13.38							
8	2.31	3.26	40.90							
9	6.45	6.89	6.78							
10	2.73	3.52	29.01							
11	5.62	6.71	19.51							
12	3.96	5.21	31.55							
13	6.68	7.27	8.86							
14	6.19	7.45	20.40							
15	5.73	6.81	18.82							
16	5.58	6.87	22.99							
17	6.99	8.26	18.12							
18	6.89	7.62	10.59							
19	5.41	6.54	20.96							
20	7.11	7.48	5.24							
21	7.17	7.80	8.78							
22	6.73	7.74	14.98							
23	3.79	5.15	35.67							
24	6.81	7.61	11.74							
25	4.63	5.64	21.89							
26	4.20	5.99	42.80							
27	5.63	6.58	17.04							
28	5.31	6.04	13.73							
29	6.16	7.65	24.07							
30	6.30	7.33	16.19							
31	6.25	6.68	6.93							
32	5.63	6.06	7.78							
33	4.98	5.79	16.32							
34	5.23	6.05	15.78							
35	6.59	7.52	14.17							
36	7.70	8.50	10.45							
37	5.00	6.02	20.42							
38	7.31	8.29	13.39							
39	6.54	7.33	12.10							
40	4.96	5.42	9.24							
Mean	5.79	6.73	16.29							
IVICUIT	5.75	0.75	10.23							

This is the data set for the diagrams below and shows the % score increase for each veteran. They are all positive with an average increase of 16.29%

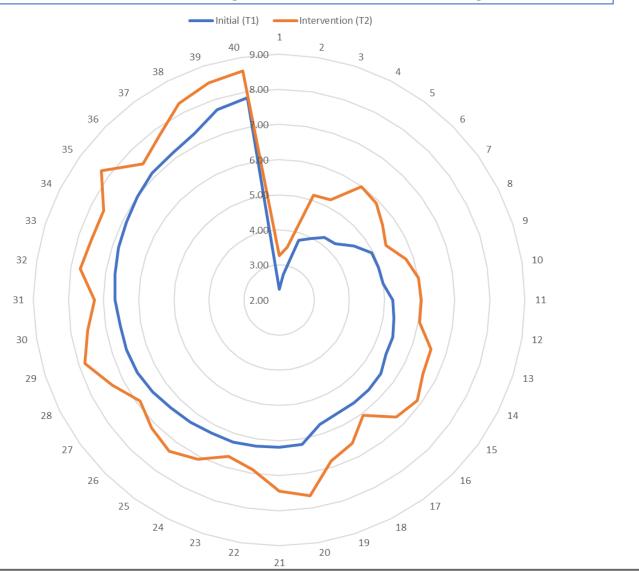






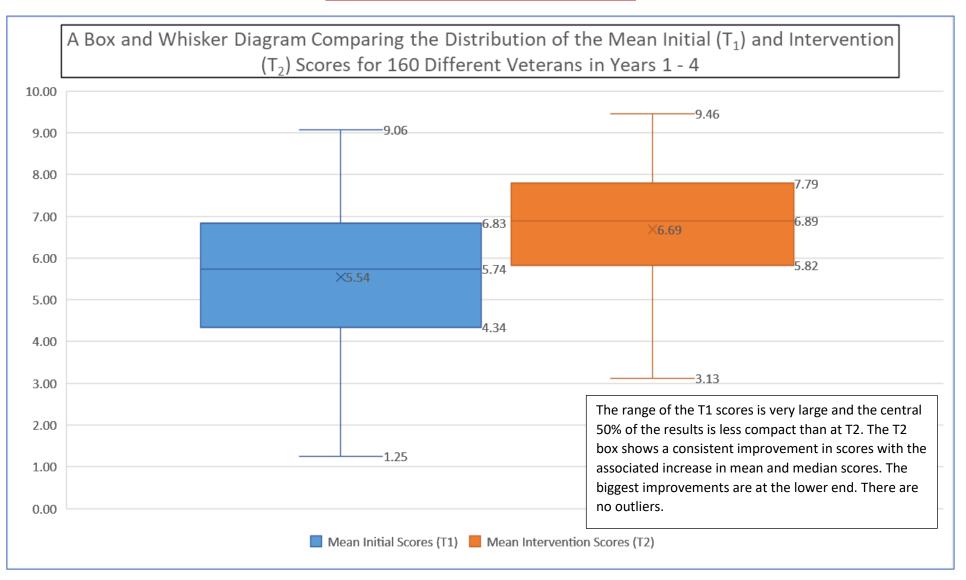
This spiders web diagram represents the data in the first table on page 32 for the 24 audit areas. The T1 blue initial score icosikaitetragon is entirely contained within the orange one for T2 scores. The distance between the boundaries at each audit area indicates the size of the change. This again shows a consistent increase in scores at T2 and is indicative of improved wellbeing.

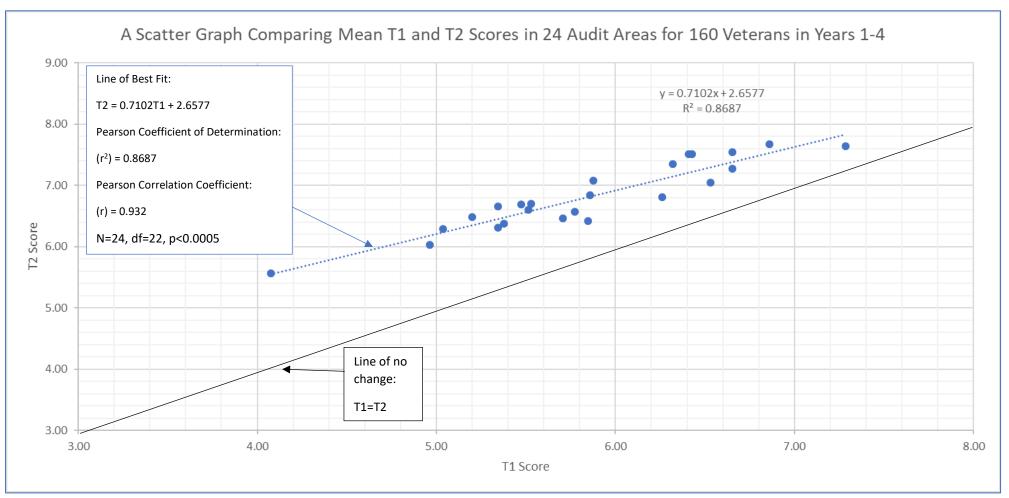
A Spiders Web Diagram comparing the Mean T1 Wheel of Life Score for each of the 40 Veterans to their Mean T2 Score, arranged in T1 score order, smallest to largest.



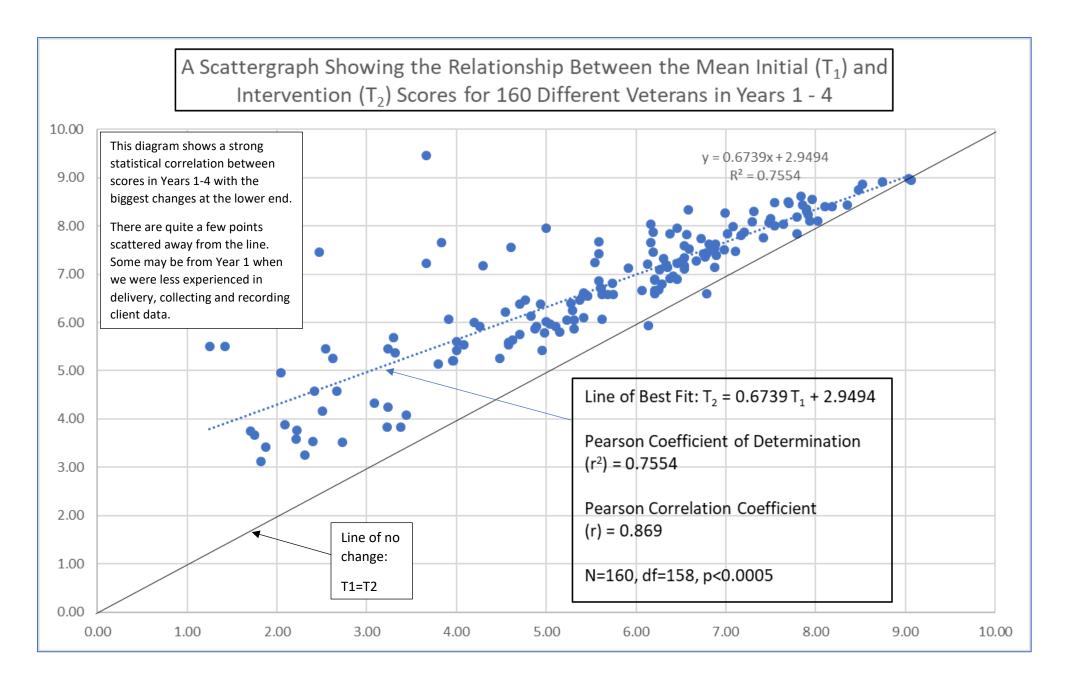
This spiders web diagram represents the data in the second table on page 32 but sorted in order of T1 score from smallest to largest. This gives it its spiral shape. The T1 blue tetracontagon is contained entirely within the T2 orange one. The biggest % change in scores can be seen at the lower end of the T1 scores. This diagram is also indicative of increased wellbeing.

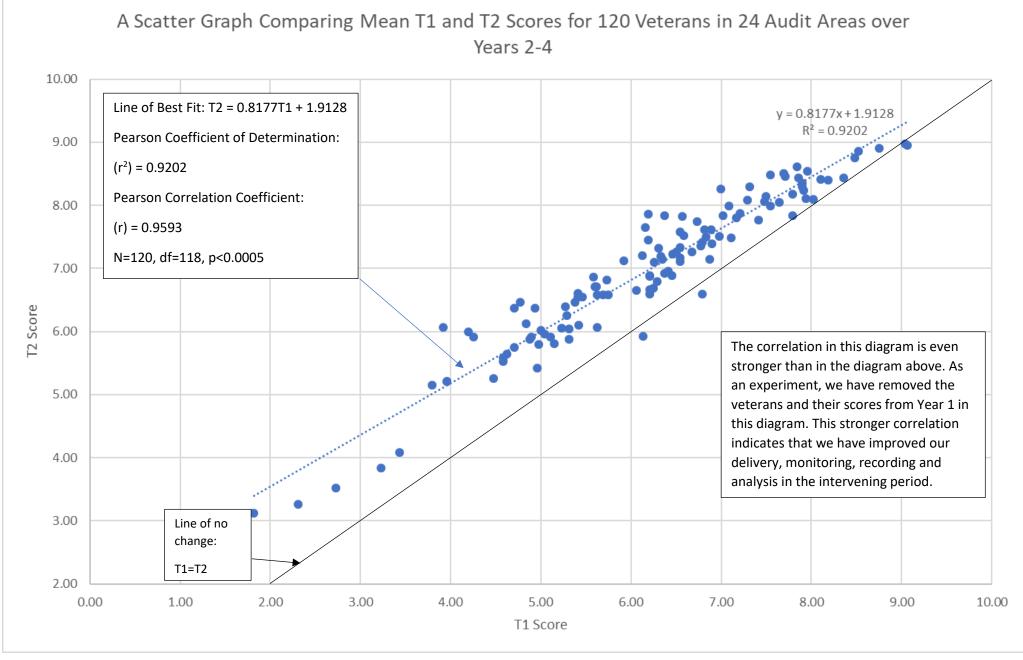
#### **Aggregate Outcomes Covering Years 1-4**





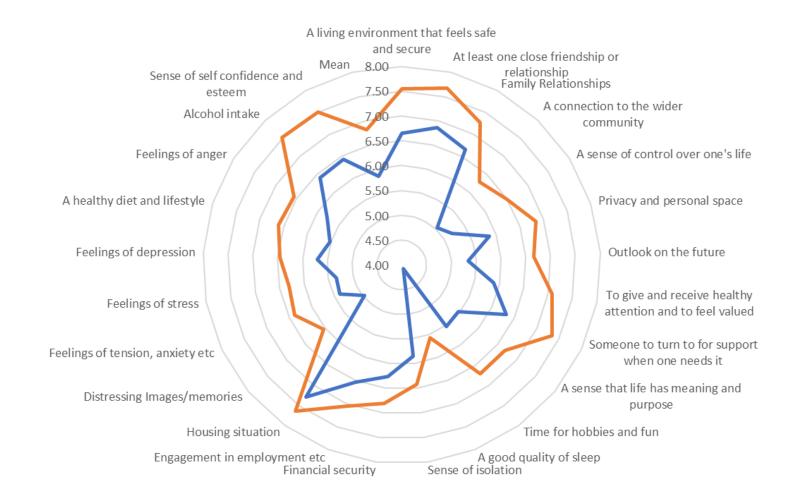
This scatter graph shows a strong correlation across all 24 audit areas in years 1-4 which is good to see. In year 1 we only had 12 audit areas and then increased them to 24 from year 2 onwards to be able to more-comprehensively monitor our outcomes. Thus the 12 original audit areas show data for 160 veterans and the other 12 for 120. This diagram suggests compactness between all 24 audit areas.





### A Spiders Web Diagram Showing the Mean T1 and T2 Scores for 160 Veterans by Audit Area in Years 1-4





The blue (T1) icosikaitetragon is entirely contained within the orange (T2) one. This indicates improvement in all audit areas, with the distance between the 2 polygons showing by how much. The shape also coincides well with the equivalent diagram for year 4 on page 35.

This all shows that our results are becoming increasingly consistent.



#### **Year 4 Outcomes**

The data displayed above shows that the results in year 4 have been strong and that we met our outcomes.

The Surf Action joined-up Recovery Model gathers sufficient data across 24 audit areas, to paint a comprehensive picture of every service user's life and situation because unless you have that information you cannot tailor your delivery to achieve the best outcomes. It is important to try and address as many of the stressor areas as possible if the service-user to get the most benefit out of their engagement. This is done either by specific information/education sessions in-house or by referral to specialist partner organisations for specialist debt, employment, guidance counselling etc. In analysing the outcomes, we are aware that;

- Some improvements in certain audit areas may be due to help given by partner organisations to whom we made a referral or others.
- Events in a service-user's life whether planned or unplanned and outside of our control may have a knock-on effect on our outcomes in the relevant audit areas.
   These may be positive or negative depending on the nature of the event.
- The experienced team at Surf Action has refined its delivery, learning from the experiences of previous years.
- A significant improvement on a very low T1 score may still be small but show as a big percentage increase and vice versa.
- Ocean Therapy is not a one-time tool hence the running of the weekly surf clinics.

The tables and diagrams allow us to say that for the Year 4 Monitoring Group:

- Their physical and psychological wellbeing have improved by an average of 17.5%
- They are on average less isolated, more engaged in their communities and improving their lifestyles in terms of health.
- They demonstrate an improvement in good family relationships.
- They demonstrate an increase in self-confidence and self-esteem
- They are actively applying the coping skills and strategies, which they have learned.
- By being more physically and psychologically, resilient they are better able to move forward in their family, social and work lives.
- Their families report being better able to cope with psychological stress and being more resilient

Ninety-Six veterans engaged with Surf Action in Year 4 so it is fair to say there were additional improvements outside the monitoring group. We also worked with 112 children from the armed forces community as part of underpinning such improvements.

Comparison Data Now that we have 4 years worth of data we are in a much better position to examine how this part of the project is developing. We have improved our data collection, recording and analysis considerably over the 4 years and hence the data for years 2, 3 and 4 is much improved on that of year 1. At the end of year 1 we also realised that the 12 audit areas we were using did not give us all the information we needed to be able to monitor our outcomes so another 12 audit areas were added. Thus for years 2, 3 and 4 we have the data in 24 audit areas compared to year 1's 12 audit areas. As a result by the end of year 4 we have reported on 160 different veterans and have the data in the 12 new audit areas for 120 of them whilst having the data for all 160 in the original 12 audit areas. This data is combined to generate the diagrams in the aggregate section above. It shows that the average percentage increase in mean T1 score by audit area over the last 4 years is a most satisfactory 17% in each audit area. From these percentages we can justifiably say that all cohorts over the past 4 years have demonstrated a significant improvement in wellbeing.

Ocean Therapy. The 8 week Ocean Therapy Course remains at the core of Surf Action's service delivery. It uses the concept of the 'Blue Gym' and offers the opportunity to those who engage to experience the outdoor classroom environment and an exhilarating physical, emotional and social experience which can act as the foundation for improvement in health and wellbeing. It is not a one-use magic bullet and the regular opportunity needs to be available for those who wish to make use of it over the longer term. Hence, the weekly Surf Clinics remain an important and integral part of our provision.

#### **EMPLOYERS AND EMPLOYMENT**

The Surf Action 'Joined-up Recovery Model' continues to encourage those who are able to return to the workplace. Specific employment sessions/advice was provided either in house of by referral to a delivery partner, to any veteran who wished to engage in order to boost their own situation. This included veterans who were inside and outside the monitoring group. Veterans who were on benefits were referred to specialist advice to ensure they did not compromise their standing through their interraction with Surf Action. The seasonal shape of the local economy suits many veterans and they relish the opportunity to work outside rather than in an office environment. Many have gained Pool Lifeguard qualifications and are now working in local holiday parks. This especially benefits those who have to put a lot of concentration into monitoring their own psychological wellbeing. Surf Action has continued to do presentations to over 100 schools, employers and other organisations either singly or at meetings/conferences in order to make the case for employing veterans and the importance of helping sustain physical and psychological resilience.

#### **CONCLUSIONS**

- By providing a mixture of high intensity watersports, physical activities and family activities, PTSD information sessions and facilitating access to therapy, Surf Action has continued to make a demonstrable improvement in the quality of the veterans' lives. Improvements were evidenced in all of the 24 audit areas.
- By actively encouraging families to attend surf clinics and by providing shared activities where families can have fun and connect in a more open and beneficial way, Surf Action has helped facilitate a positive change in both family relationships and connection. This also improves/strengthens community relationships.
- By providing a platform where veterans and their families can meet others with shared experiences, Surf Action is helping reduce the sense of isolation which many veterans feel and to boost family and community engagement and cohesion.
- By providing information sessions about Post Traumatic Stress Disorder, referral routes, its background, effects, coping mechanisms and treatments to the veterans,

their families and volunteers, Surf Action is helping veterans and their families better deal with PTSD in their day-to-day lives with the associated benefits to family life and bonds.

The Surf Action 'Centre of Excellence' project has continued to make good progress. We look forward to continuing improvements in Year 5.

#### **LESSONS LEARNED AND FUTURE PLANS**

- By working hard at improving and maintaining regular client contact good results have been achieved however there are still many veterans with whom this is still quite difficult and contact somewhat sporadic. We will continue to work on trying to improve on this where possible
- 2. The enhanced 24 areas of the Emotional Needs Audit used on the Surf Action 'Wheel of Life' (Griffin and Tyrrell as amended by Surf Action) have been a success and enabled improved specificity in data capture, monitoring, recording and analysis. Changes to several questions to aid ease of understanding are being considered.
- 3. The Warwick and Edinburgh Universities Mental Wellbeing Scale (WEMWBS) has helped with the monitoring of the projects which are run specifically for youngsters. It is simple to administer, understand and completeso we will continue to use it in year 5.
- 4. Surf Action has continued to work hard to create a strong and sustainable platform on which to base its current and future projects. The strong governance of the charity has seen the introduction of Improved monitoring systems to capture real-time data and more robust financial and operational management. Support systems have also continued to be refined.
- 5. The improvements outlined above have kept the charity on a sound financial basis. Surf Action has put a lot of effort into building good and sustainable relationships with a wide variety of other charities/organisations and can now look to expanding its activities and services into other parts of the UK, working more closely with the Ministry of Defence and its units/establishments and other centres of excellence.

- 6. Having a well designed, easy to use and informative website is an essential for any charity/organisation. Surf Action will continue to develop and enhance its successful website (<a href="http://www.surfaction.co.uk">http://www.surfaction.co.uk</a>) along with its use of social media including Facebook, Instagram and Twitter. Complimentary comments about its format and content from several large national mental health charities have been well received.
- 7. Surf Action relies heavily on volunteers in order to keep core costs to a minimum in order to maximise the amount of money available to be spent in directly supporting its charitable objectives and will continue to support, value and encourage volunteering amongst its veterans and the wider community.

None of this would have been possible without the fantastic support of the 'Reaching Communities Big Lottery Fund' and we express our profound thanks.







