



SUPPORTING SERVING AND FORMER
MEMBERS OF THE ARMED FORCES,
EMERGENCY SERVICES AND FAMILIES



A CROSS-SECTIONAL EVALUATION OF THE IMPACT OF SURF ACTION IN USING OCEAN THERAPY TO SUPPORT THE PHYSICAL & PSYCHOLOGICAL WELLBEING OF THE ARMED FORCES COMMUNITY FROM 2013-2018

THE BEACH: AN ADDICTIVE,
MOOD and MIND ALTERING
DESTINATION

Common side effects may include complete
serenity, joy, happiness, stress free relaxation,
peacefulness, and pure tranquility. Ask your doctor
if the beach is right for you.



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



Forward

There is overwhelming scientific evidence that being physically active leads to a healthier and happier life and that these benefits are even more prevalent when activity takes place in or near the ocean/green spaces. Surf Action has been at the vanguard of the development of ocean-based activities and its acceptance in the mainstream. It is a complimentary therapeutic approach that enables an element of space, creativity and fun that is often lacking in traditional therapy options. Surf Action has been delivering surf therapy to the armed forces community for over five years and latterly, it has also been asked to work with vulnerable families and individuals from the wider civilian community.

There is a common tendency when reporting on services to use a lot of pictures showing the service users being active and smiling and to 'let the picture tell a thousand words' and Surf Action is not immune to this however, they realise that a picture is only the encapsulation of emotions at that specific moment and sometimes a photograph can be a façade, masking many hidden emotions. This report seeks to examine the effects of the surf therapy programme over the longer term and to get beneath the façade of pictures. **Surf Action has collected both quantitative and qualitative data throughout its delivery and this report is an examination of the aggregated data looking at the delivery, efficacy and outcomes of the Surf Action Surf Therapy model.**

Surf Action is not a surf school that provides unlimited free surfing! Through its funding streams and ethos, Surf Action uses ocean therapy as a therapeutic tool but wants its service users to be able to move on in their lives and are delighted when this means they don't need their help anymore. Those who wish to take up surfing as a sport as a result of their participation are taught all the necessary health and safety considerations and encouraged to do so however it needs to be done at their own expense either individually or by joining a surf school/club. Similarly, if someone has moved on in their life but feels the need to return for a spell, Surf Action will always try to accommodate them. Surf Action teaches independence, not dependence, hence this report is **cross-sectional** instead of longitudinal because, by design, there is not a sizeable cohort of repeat/long-term service users.

Surf Action is very fortunate in benefitting from a wide range of skills possessed by its invaluable and dedicated volunteers and these include the degree-level mathematical and statistical skills necessary to arrange and amalgamate the data, design a tailored excel spreadsheet and to carry out the associated statistical analysis and the generation of the appropriate diagrams. The full, anonymised data-set and spreadsheet are included at the end of this report to demonstrate Surf Action's belief in the openness of their surf-therapy model and research. This report

is deliberately written, and the data presented, in a way which can be easily understood by the wider community as well the academic community.

The analysis was carried out with the hypothesis that ‘Surf Action’s surf therapy provision has a positive and sustainable effect on the wellbeing of participants’. The analysis looked for evidence which supported this and for evidence which might support the opposing null-hypothesis, namely that ‘Any positive effect in wellbeing as a result of participation can be attributed to other outside environmental/social factors’.

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.**

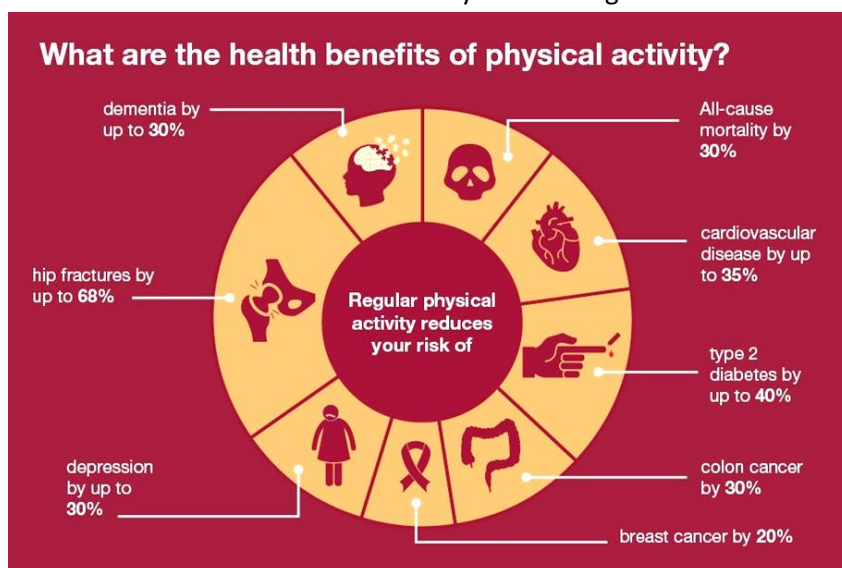
Surf Action promotes good physical and mental health through personal development, good personal choices, solution focused therapy, education and empowers its service users to lead healthy, fulfilled and independent lives and to become valued and active members of their community. Core to achieving this is the use of the blue gym concept and involving their service users and their families in surfing, kayaking, paddle-boarding, and other high intensity water-sports in the magnificent coastal environment with the resulting recognised physical and psychological health benefits.

Surf Action Joined-Up Recovery Model

Surf Action has developed and refined its own educational route pathways through which the service users can achieve their specific needs and they are incorporated within Surf Action’s ‘**Integrated Joined-Up Recovery Programme**’.

Surf Action defines ‘Recovery’ as ‘living well in-spite of any difficulties people may have to face’. They 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





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SURF ACTION JOINED-UP RECOVERY MODEL

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

Comprehensive Client Needs Analysis

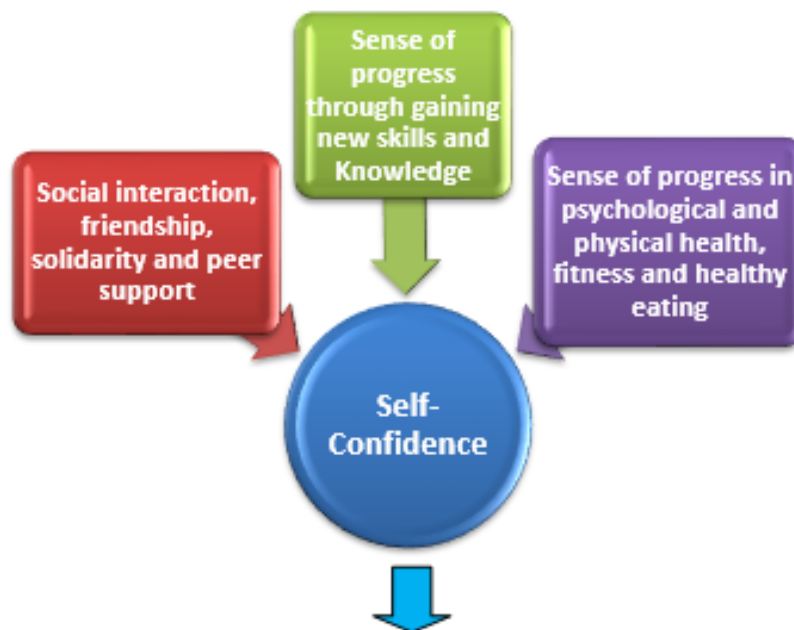
- Including a physical, psychological and emotional needs audit (Griffin & Tyrrell)
- Signposting where beneficial during initial engagement



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



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.^{1,2}, Smith B.². & Phoenix C.¹. (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) (¹ European Centre for Environment and Human Health, University of Exeter Medical School. ² Peter Harrison Centre for Disability Sport, University of Loughborough)
- Caddick N.^{1,2}, Smith B.². & Phoenix C.¹. (2015) Male Combat Veterans' Narratives of PTSD, Masculinity and Health. (Sociology of Health and Illness, 2015). (¹ European Centre for Environment and Human Health, University of Exeter Medical School. ² 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 enough 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 male-dominated 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 Story making:** 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 story making (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 once a week 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 Surf England registered Surf Instructor, a psychologist/occupational therapist and 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 ACTION 8 WEEK OCEAN THERAPY COURSE STRUCTURE 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, tides and conditions	Surfing etiquette	Turning on the board	Improving your surfing	Improving your Surfing Technique
Resiliency Theme	Intro to Surf Action	Trauma and the brain	Role Identity	Leadership and Trust	Community Building	Problem Solving	Transition	Do you feel different now

	and the course							compared to the start?
Key Process Elements	 The elements evolve and intertwine across each session of the Course “Adrenalin-Rush”, “A New Kind of Brotherhood”, “Story-Telling and Story-Making”, “Reframing the Mission” 							
Wheel of Life Monitoring	✓							✓ and after 6-9 months
Notes	<p>Each session is broken down into:</p> <p>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.</p> <p>A 15-minute Stretching and Warm Up Session preparing the body for the physical demands of surfing.</p> <p>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).</p> <p>A 90-minute Surf Lesson supported by the Instructor, volunteers and staff.</p> <p>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 specific 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.</p> <p>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.</p> <p>The Surf Instructor is Emergency 1st Aid trained and a 1st Aid Kit is always available.</p> <p>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.</p> <p>All activities and venues are fully risk assessed.</p>							

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 one's 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.

PROJECT GOALS

- 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' resilience, 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.

EVALUATION OF WELLBEING

An important part of the project was evaluating whether the sessions had a positive effect on the participants.

Psychological well-being is now largely accepted as covering two perspectives: (1) the subjective experience of happiness (affect) and life satisfaction (the hedonic perspective); and (2) positive psychological functioning, good relationships with others and self-realization (the eudaimonic perspective). The latter includes the capacity for self-development, positive relations with others, autonomy, self-acceptance and competence. Surf Action wanted to use a simple but psychometrically robust, validated wellbeing tool which would reflect both the hedonic and eudaimonic perspective. For the veterans, they decided to use a 12 sector 'Wheel of Life' evaluation tool (based on the recognised human givens 'Emotional Needs Audit' developed by J. Griffin & I. Tyrrell and adapted for use with veterans by Surf Action). Participants were also engaged in directed conversation by the Surf Action psychologist/occupational therapist and volunteers and additional qualitative data was gathered about what changes they had experienced as each course progressed.

- The qualitative areas of life audited were (original 12 'Emotional Needs' audit areas in bold):
 - **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**

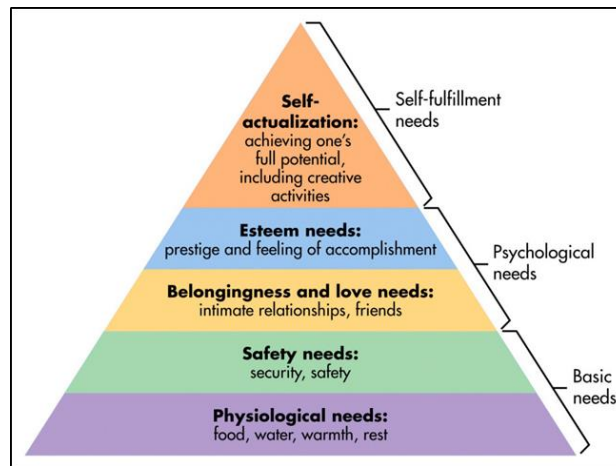
- **A sense that life has meaning and purpose**
- **Time for hobbies and fun**
- **A good quality of sleep**
- Feelings of isolation
- Debt and financial management
- Engagement in Employment, education, training or volunteering
- Housing situation
- Distressing images/memories
- Feelings of anxiety, tension and nervousness
- Feelings of stress
- Feelings of depression
- **A healthy diet and lifestyle**
- Feelings of anger
- Alcohol intake
- Self-confidence and esteem

At the end of year 1 Surf Action decided to add an additional 12 audit areas in order to gather a wider range of data. Thus, there is the data for 200 veterans in the 12 original audit areas and for 160 veterans in the additional 12 audit areas (for years 2-5). Comprehensive explanatory notes and the help of the volunteers were provided to help participants when evaluating their own, personal stress-levels and to evaluate any feelings of depression etc to make their assessment as close to the clinical definitions as possible. Surf Action recognise that this has limitations however they had originally intended to use a formal clinical assessment tool but early on it became plain that the participants disliked it whilst some found the form 'too complex and almost threatening' and they were reluctant to complete it. The system Surf Action then adopted was a good compromise.

METHODOLOGY

As part of its integrated recovery programme Surf Action engaged its service users in structured 8-week courses 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 based on Maslow's Hierarchy of Needs as shown below



- 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 self-referral 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.
- The 'Wheel of Life' evaluation tool was used to monitor the progress of each veteran at regular intervals. Veterans were asked to rate each of the 12 (in year 1) and 24 (in year 2) audit 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 considered indicative of a considerable stressor in the veteran's life.** For the purposes of formal assessment only veterans/service users who had completed at least 3 wheels at regular intervals over 3-12 months as they engaged with the ocean therapy were included in the audit as it represented the best quality evidential data trail. The first wheel was completed at the start of their ocean-therapy, the second at the end and the third at least 9-months after the end of their ocean-therapy course. Sometimes veterans tended to put 'not applicable' on the wheel in any 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.
- Weekly support and social interaction were 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).



PROJECT SUMMARY

AGGREGATE DATA AND OUTCOMES OVER THE LAST 5-YEARS FOR THE 'SURF ACTION, CENTRE OF EXCELLENCE' PROJECT

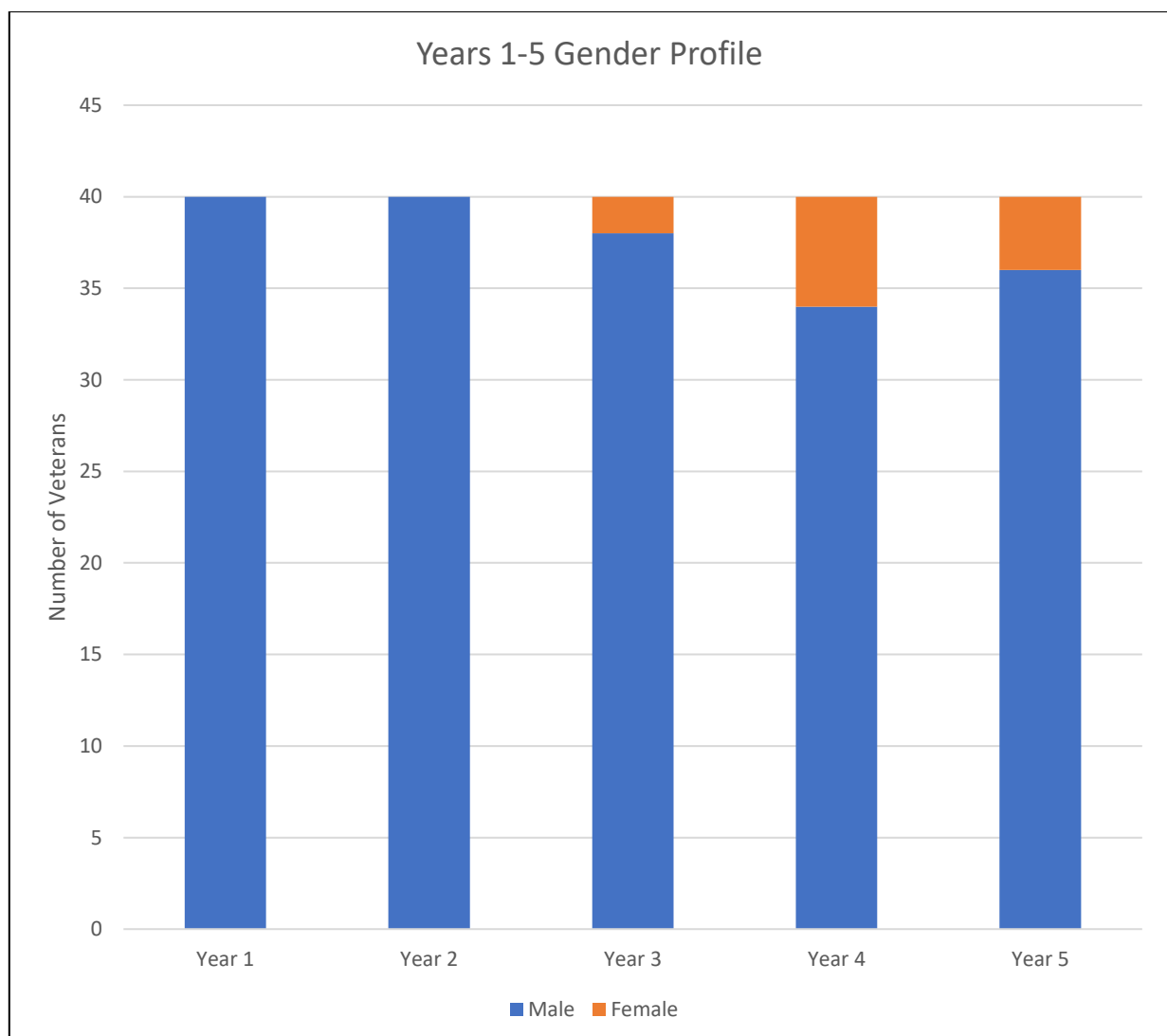
YEARS 1-5 VETERAN PROFILE

ETHNIC BACKGROUND

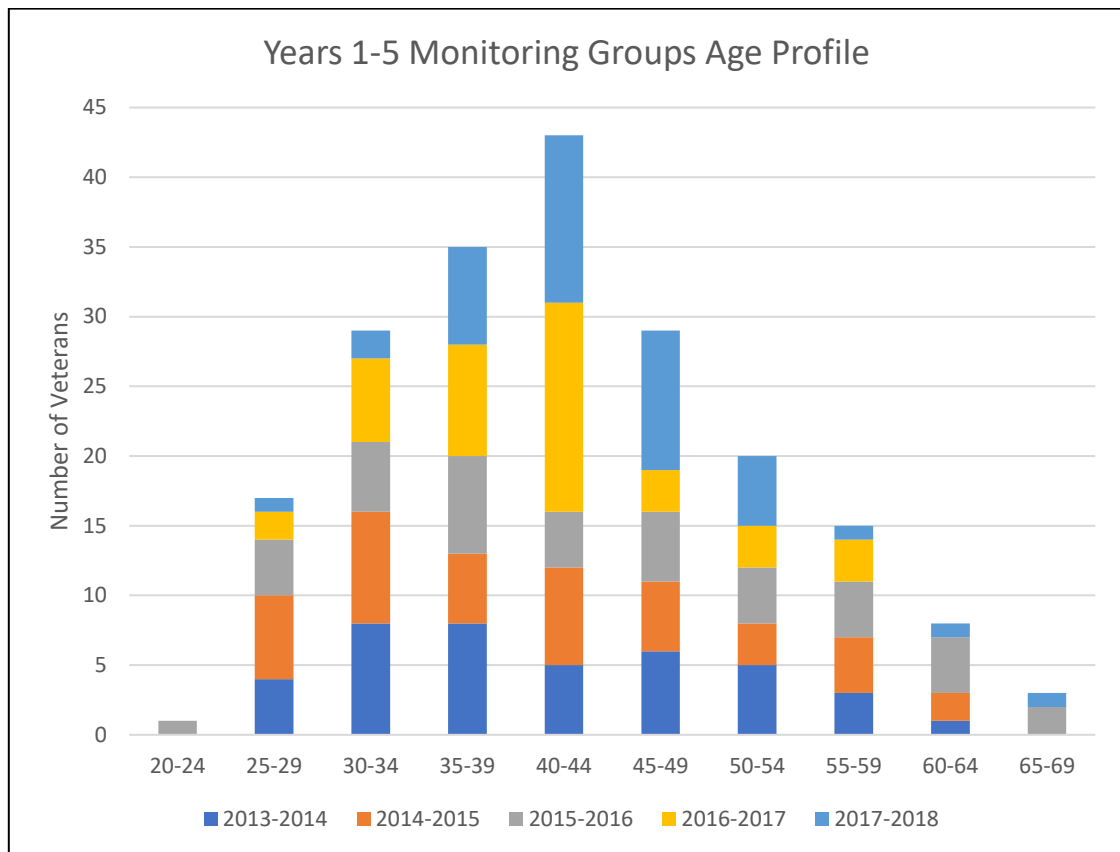
The Years 1-5 monitoring groups ethnic profile from those who declared it showed 98% were white and 2% mixed ethnic background. This is consistent with the demographic of Cornwall in which 98.7% of the population define themselves as White (ONS, 2008).

GENDER

Due to the older average age of the veterans, this mainly predated female frontline participation and hence, 94% of the veterans in Years 1-5 were male.

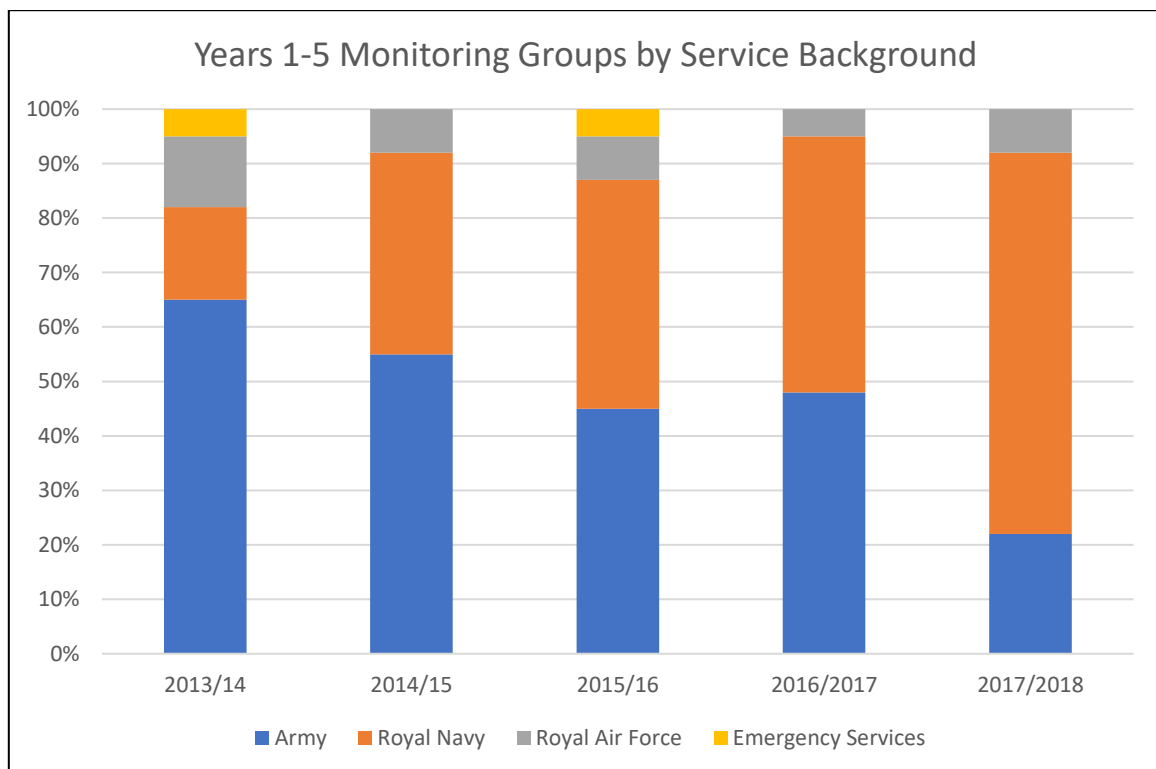


AGE



There were a wide range of ages amongst the veterans over the 5 years however the diagram above does show an overall bell shape which implies an approximately normal distribution.

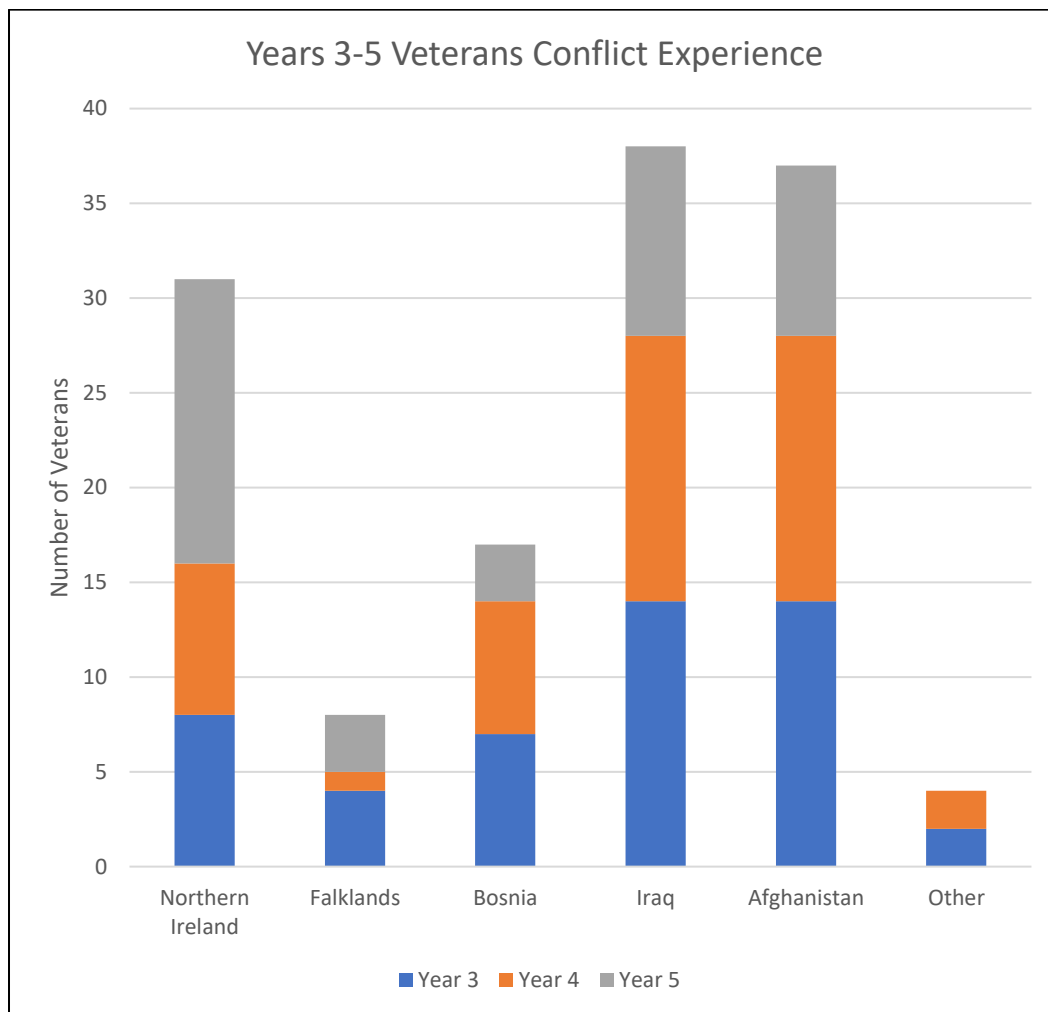
SERVICE BACKGROUND



The figures for the Royal Navy include the Royal Marines.

CONFLICT EXPERIENCES

(Where declared, this data was only collected from Year 3 onwards)



Comparison Data Now that Surf Action has 5 years worth of data they are in a much better position to examine how the project has developed. They improved their data collection, recording and analysis considerably over the 5 years and hence the data for years 2-5 is much improved on that of year 1. At the end of year 1 they also realised that the 12 audit areas in use did not give them all the information they needed to be able to monitor their outcomes so another 12 audit areas were added. Thus for years 2-5 they have the data in 24 audit areas compared to year 1's 12 audit areas. As a result by the end of Year 5 they have reported on 200 different veterans and have the data in the 12 new audit areas for 160 of them whilst having the data for all 200 in the original 12 audit areas. This data is shown below with the colour **Blue** for data where it represents 200, and black for where it represents 160 veterans.



Initial T1 Scores for 200 Veterans

Years 1 - 5 Initial T1 Data																										
	Safe Environment	1 Close Relationship	Family Relationships	Wider Community	In Control	Privacy	Achieving and Future	Feel Valued	Someone To Turn To	Meaning and Purpose	Hobbies	Sleep	Isolation	Debt	Employment etc	Housing	Distressing Images	Anxiety	Stressed	Depressed	Healthy Lifestyle	Angry	Alcohol	Esteem	Wheel Total	Wheel Mean
1	2.80	3.20		1.50	2.60	2.80	2.00	2.50	2.30	2.50	1.50	1.50									1.50				26.70	2.23
2	9.00	8.00		4.00	4.80	5.00	2.50	4.00	2.30	2.80	4.00	1.00									7.10				54.50	4.54
3	4.00	4.50		4.00	2.80	5.00	4.30	5.00	4.50	5.50	6.00	2.50									7.20				55.30	4.61
4	9.00	9.00		3.50	7.00	4.00	8.50	7.50	8.50	10.00	4.00	1.00									9.00				81.00	6.75
5	5.50	2.00		2.00	4.00	7.00	5.00	1.50	7.00	3.00	1.00	1.00									5.00				44.00	3.67
6	8.00	9.00		7.50	5.00	7.00	6.00	8.00	7.00	5.00	8.00	5.00									7.00				82.50	6.88
7	1.00	2.00		1.00	2.00	3.00	2.00	2.50	2.00	1.00	2.00	1.00									1.00				20.50	1.71
8	1.50	1.50		2.80	2.80	4.00	2.00	3.00	1.00	2.00	3.00	4.00									2.50				30.10	2.51
9	2.50	3.50		2.60	2.00	3.00	3.50	2.50	1.50	2.50	4.00	1.00									1.00				29.60	2.47
10	3.50	8.50		2.80	3.00	4.00	2.80	2.50	1.00	3.00	4.00	2.00									2.50				39.60	3.30
11	2.80	4.00		4.50	3.50	4.00	3.00	3.00	3.50	2.50	3.00	3.00									2.00				38.80	3.23
12	3.50	1.00		3.50	2.00	2.50	2.50	2.00	1.00	1.50	2.00	1.00									2.00				24.50	2.04
13	3.50	4.50		3.00	2.50	4.00	3.00	5.00	4.00	3.00	4.00	4.00									5.50				46.00	3.83
14	2.00	3.00		3.50	3.00	4.00	4.00	2.50	2.00	2.50	1.50	1.00									2.50				31.50	2.63
15	3.00	2.50		3.50	2.50	2.00	4.00	4.50	2.50	1.50	1.50	1.00									2.00				30.50	2.54
16	3.00	4.00		3.00	4.00	2.50	4.00	2.50	4.00	2.50	4.00	2.80									2.50				38.80	3.23
17	7.00	9.00		5.50	5.00	8.00	7.00	2.50	8.00	7.00	7.00	5.00									3.00				74.00	6.17
18	5.00	3.00		4.00	4.00	2.00	4.00	3.00	5.00	3.00	5.00	4.00									2.00				44.00	3.67
19	6.00	4.00		2.00	4.50	4.50	7.50	7.50	7.50	7.50	6.00	5.00									4.50				66.50	5.54
20	2.00	5.00		1.00	1.00	7.00	3.00	2.00	7.00	2.00	3.00	1.00									3.00				37.00	3.08
21	9.50	5.00		3.00	4.00	6.50	3.00	5.00	7.00	7.00	7.00	4.00									6.00				67.00	5.58
22	9.00	8.50		8.50	6.00	8.00	8.00	7.00	7.50	6.00	4.50	2.00									4.00				79.00	6.58
23	8.00	10.00		2.00	1.00	1.00	7.00	5.00	10.00	4.00	3.00	2.00									7.00				60.00	5.00
24	2.00	2.50		1.50	2.50	2.00	2.50	2.00	2.50	2.00	1.00	1.00									1.00				22.50	1.88
25	4.50	8.00		7.00	6.00	6.00	6.50	7.50	9.00	7.00	7.00	1.00									8.00				77.50	6.46
26	2.50	3.00		1.00	2.50	2.00	2.00	2.50	2.00	2.50	1.50	1.50									2.00				25.00	2.08
27	2.00	1.00		2.00	1.00	2.00	1.00	1.00	2.00	2.00	1.00	1.00									1.00				17.00	1.42
28	2.50	1.00		2.00	2.00	1.50	1.00	2.50	2.50	2.00	2.00	1.00									1.00				21.00	1.75
29	2.00	3.00		2.00	2.00	1.50	2.50	2.50	4.00	3.00	2.00	1.00									1.00				26.50	2.21
30	3.00	4.00		1.00	2.00	2.00	4.00	3.00	1.00	2.00	4.00	1.00									2.00				29.00	2.42
31	6.50	7.50		2.80	3.50	9.00	1.00	1.00	2.50	1.00	1.00	1.00									3.00				39.80	3.32
32	4.50	5.00		4.00	5.00	7.00	3.00	3.00	2.50	5.00	3.00	4.00									3.00				49.00	4.08
33	1.00	1.00		1.00	3.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00									1.00				15.00	1.25
34	7.00	10.00		10.00	4.00	3.00	7.00	3.00	3.00	5.00	7.00	5.00									3.00				67.00	5.58
35	9.00	1.00		3.50	5.00	8.00	4.00	2.50	1.00	2.00	6.00	3.00									3.00				48.00	4.00
36	1.00	10.00		1.00	1.00	6.00	1.00	3.00	7.50	5.00	3.00	1.00									1.00				40.50	3.38
37	2.00	3.00		2.00	2.00	2.50	2.00	2.80	1.00	2.50	4.00	2.00									3.00				28.80	2.40
38	2.50	6.00		7.00	5.00	4.00	6.00	5.00	1.00	5.00	4.00	1.00									5.00				51.50	4.29
39	5.00	1.00		3.00	3.00	6.00	1.00	1.00	2.00	1.00	5.00	2.00									2.00				32.00	2.67
40	2.00	5.00		2.00	2.00	6.00	3.00	3.00	7.00	5.00	3.00	5.00									5.00				48.00	4.00
41	8.00	7.00	6.00	7.00	8.00	5.00	6.00	7.00	7.00	7.00	5.00	5.00	6.00	5.00	5.00	7.00	6.00	6.00	6.00	6.00	7.00	6.00	5.00	6.00	149.00	6.21
42	8.00	8.00	6.00	6.00	6.00	5.00	5.00	6.00	7.00	6.00	7.00	6.00	7.00	5.00	7.00	7.00	7.00	7.00	7.00	6.00	7.00	6.00	3.00	5.00	149.00	6.21
43	9.00	9.00	9.00	7.00	9.00	9.00	9.00	8.00	9.00	9.00	9.00	8.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	8.00	9.00	8.00	3.00	7.00	194.50	8.10
44	6.00	7.00	5.00	5.00	6.00	7.00	5.00	7.00	8.00	6.00	9.00	6.00	8.00	8.00	7.00	6.00	6.00	7.00	7.00	7.00	6.00	6.00	5.00	7.00	157.00	6.54
45	9.00	6.00	6.00	6.00	7.00	7.00	7.00	8.00	9.00	8.00	7.00	7.00	8.00	6.00	6.00	9.00	8.00	9.00	9.00	9.00	8.00	9.00	7.00	6.00	181.00	7.54
46	9.50	7.00	9.50	7.00	8.00	9.50	8.00	7.00	9.50	7.00	3.00	5.00	7.00	1.00	4.00	8.00	4.00	4.00	4.00	7.00	6.00	2.00	9.00	6.00	152.00	6.33
47	7.00	9.00	9.00	7.00	7.00	6.00	9.00	9.00	9.00	9.00	7.00	6.00	9.00	5.00	7.00	7.00	5.00	6.00	7.00	7.00	5.00	7.00	4.00	7.00	170.00	7.08
48	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.50	9.00	8.00	6.00	9.00	6.00	6.00	8.00	6.00	6.00	6.00	8.00	8.00	8.00	8.00	7.00	189.00	7.90
49	9.00	9.00	9.00	7.00	9.00	7.00	9.00	9.00	9.00	9.00	8.00	7.00	9.00	7.00	9.00	9.00	7.00	8.00	8.00	7.00	6.00	8.00	4.00	8.00	190.00	7.92
50	7.00	2.00	4.00	5.00	3.50	5.00	4.00	5.00	3.00	4.00	2.00	8.00	3.00	9.00	2.50	9.00	3.00	3.00	3.00	2.00	2.00	5.00	9.50	4.00	107.50	4.48
51	9.00	9.00	8.00	8.00	6.00	8.00	9.00	8.50	7.00	6.00	7.00	7.00	5.00	7.00	5.00	7.00	5.00	7.00	7.00	5.00	7.00	5.00	9.00	4.00	167.50	6.98
52	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.00	9.50	9.50	9.50	9.00	9.50	9.00	9.50	9.50	9.50	9.50	9.50	9.50	9.00	4.00	6.00	217.00	9.04
53	6.00	7.00	7.00	5.00	5.00	5.00	5.00	5.00	4.00	3.00	5.00	3.00	4.00	3.00	4.00	4.00	3.00	3.00	3.00	4.00	5.00	4.00	7.00	6.00	110.00	4.58
54	9.50	9.50	9.00	9.00	9.00	9.50	9.50	9.00	9.00	9.00	7.00	7.00	9.00	9.50	9.50	9.50	9.50	8.50	6.00	7.00	8.00	8.00	5.00	9.00	204.50	8.52
55	6.00	4.00	4.00	2.00	4.00	9.50	3.50	2.50	2.50	2.50	9.50	4.00	2.50	8.00	8.00	9.50	2.50	2.50	2.50	6.00	6.00	6.00	6.00	10.00	123.50	5.15
56	9.50	9.50	9.50	8.00	8.00	6.50	8.00	9.50	9.50	9.50	4.00	2.00	9.50	8.00	10.00	10.00	6.00	5.00	5.00	9.00	9.50	8.00	10.00	7.00	190.50	7.94
57	2.00	3.00	3.00	1.50	1.50	2.50	1.50	2.00	4.00	3.00	4.00	3.50	4.50	5.00	1.00	5.00	1.00	1.00	2.00	1.00	4.00	5.00	9.50	7.00	77.50	3.23
58	4.00	9.50	9.50	3.00	2.00	3.00	5.00	5.00	9.50	6.00	7.00	3.00	4.00	5.00	5.00	6.00	3.00	2.00	3.00	4.00	5.00					

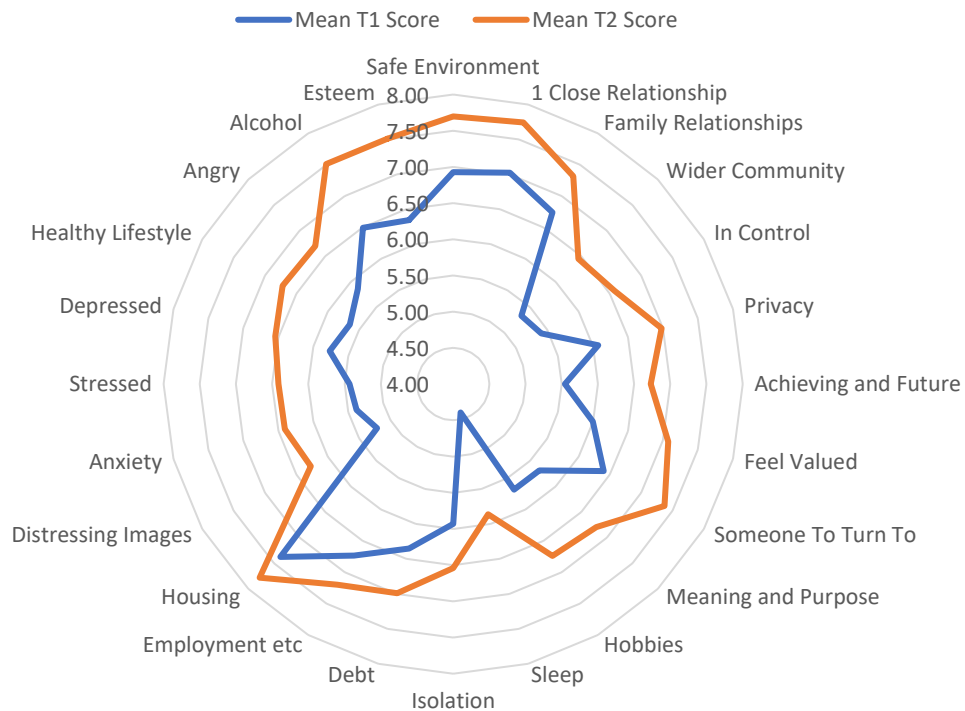
91	8.00	9.00	8.00	8.00	9.00	8.00	8.00	8.00	8.00	8.00	9.00	6.00	5.00	8.00	6.00	7.00	6.00	4.00	5.00	5.00	5.00	6.00	6.00	5.00	8.50	165.50	6.90	
92	9.00	9.00	8.00	8.00	7.00	8.00	8.00	8.00	9.00	9.00	7.00	6.00	4.00	5.00	8.00	8.00	9.00	4.00	6.00	6.00	6.00	7.00	7.00	8.00	7.00	8.00	173.00	7.21
93	6.00	7.00	3.00	4.00	4.00	5.00	4.00	6.00	6.00	4.00	4.00	4.00	4.00	5.00	6.00	5.00	7.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	2.50	117.50	4.90	
94	7.00	8.00	8.00	7.00	7.00	7.00	7.00	6.00	6.00	7.00	6.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.00	7.00	164.00	6.83	
95	7.00	6.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	5.00	5.00	2.50	7.00	114.50	4.77		
96	7.00	6.00	6.00	4.00	4.00	4.00	4.00	5.00	4.00	4.00	6.00	3.00	3.00	4.00	5.00	5.00	7.00	4.00	5.00	4.00	4.00	5.00	5.00	5.00	5.00	113.00	4.71	
97	7.00	8.00	8.00	6.00	6.00	7.00	5.00	7.00	7.00	6.00	8.00	4.00	3.00	5.00	6.00	6.00	4.00	4.00	5.00	5.00	7.00	5.00	6.00	7.00	142.00	5.92		
98	8.00	8.00	2.00	3.00	3.50	8.00	6.00	6.00	8.00	8.00	6.00	2.00	6.00	9.50	4.50	8.00	2.50	4.00	4.00	4.50	2.50	6.00	9.50	5.00	134.50	5.60		
99	9.00	8.00	8.00	8.00	8.00	7.00	9.00	8.00	7.00	8.00	5.00	5.00	6.00	9.50	5.00	9.00	5.00	7.00	7.00	8.00	8.00	6.00	9.00	8.00	179.50	7.48		
100	5.00	6.00	4.00	4.00	4.00	5.00	4.00	4.00	4.00	4.00	6.00	3.00	4.00	4.00	4.00	5.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	5.00	95.00	3.96		
101	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8.00	6.00	10.00	4.00	8.00	10.00	4.00	5.00	6.00	10.00	6.00	8.00	6.00	10.00	2.50	6.00	189.50	7.90	
102	10.00	10.00	7.00	2.00	2.50	5.00	2.50	3.00	4.00	6.00	6.00	3.00	5.00	4.00	10.00	5.00	5.00	10.00	10.00	5.00	5.00	5.00	2.00	3.00	130.00	5.42		
103	8.00	9.00	8.00	2.00	3.50	6.00	4.00	4.00	4.00	6.00	4.00	6.00	4.00	4.00	3.00	4.00	8.00	2.50	2.50	4.00	6.00	4.00	8.00	4.00	118.50	4.94		
104	10.00	10.00	10.00	7.50	9.00	9.00	6.00	9.00	7.00	7.00	4.00	4.50	9.00	8.00	9.00	7.00	4.00	5.00	7.00	9.00	8.00	7.00	9.00	10.00	185.00	7.71		
105	8.00	6.00	3.00	2.00	5.00	5.00	4.00	4.00	6.00	6.00	5.00	4.00	5.00	5.00	5.00	5.00	6.00	6.00	7.00	7.00	7.00	5.00	4.00	127.00	5.29			
106	2.00	2.00	2.00	1.00	1.50	1.50	3.00	2.80	2.80	1.00	2.00	1.00	2.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00	4.00	2.00	43.60	1.82		
107	7.00	7.00	3.00	7.00	7.00	7.00	7.00	6.00	5.00	7.00	7.00	3.00	5.00	9.00	7.00	9.00	3.00	4.00	5.00	5.00	9.00	7.00	9.00	8.00	153.00	6.38		
108	9.00	9.00	9.00	7.00	8.00	6.00	6.00	8.00	9.00	6.00	6.00	4.00	4.00	5.00	5.00	7.00	3.00	4.00	4.00	4.00	6.00	5.00	5.00	8.00	147.00	6.13		
109	6.00	6.00	5.00	5.00	5.00	5.00	5.00	5.00	6.00	5.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	121.00	5.04		
110	7.00	7.00	5.00	5.00	6.00	4.00	5.00	6.00	6.00	5.00	4.00	4.00	3.00	4.00	4.00	7.00	4.00	7.00	5.00	5.00	6.00	5.00	5.00	8.00	126.50	5.27		
111	8.00	8.00	8.00	7.00	8.00	6.00	8.00	5.00	6.00	6.00	5.00	4.00	6.00	7.00	7.00	7.00	5.00	6.00	7.00	6.00	7.00	7.00	6.00	157.00	6.54			
112	7.00	8.00	6.00	7.00	7.00	6.00	6.00	6.00	6.00	3.00	6.00	7.00	5.00	4.00	6.00	5.00	8.00	7.00	7.00	8.00	9.00	6.00	10.00	6.00	157.00	6.54		
113	8.00	10.00	6.00	10.00	5.50	8.00	4.00	4.50	6.00	6.00	10.00	2.50	8.00	10.00	10.00	8.00	6.00	4.00	4.00	4.00	8.00	4.00	10.00	5.00	162.50	6.77		
114	9.00	4.00	8.00	10.00	7.00	8.00	8.00	6.00	10.00	9.00	4.00	6.00	1.00	10.00	9.00	6.00	7.00	5.00	6.00	9.00	6.00	10.00	10.00	7.00	175.00	7.29		
115	8.00	6.00	4.00	2.50	6.00	6.00	4.00	5.50	5.50	2.50	4.00	4.00	4.00	8.00	4.00	4.00	4.00	4.00	4.00	4.00	6.00	4.00	5.00	113.00	4.71			
116	6.00	7.00	6.00	5.00	4.00	5.00	5.00	5.00	5.00	4.00	5.00	3.00	4.00	4.00	7.00	7.00	4.00	5.00	5.00	5.00	6.00	7.00	7.00	5.00	129.00	5.38		
117	7.00	7.00	7.00	7.00	5.00	7.00	8.00	6.00	6.00	7.00	6.00	4.00	6.00	7.00	9.00	7.00	5.00	5.00	7.00	5.00	7.00	5.00	4.00	9.00	153.00	6.38		
118	8.00	8.00	7.00	8.00	6.00	6.00	7.00	6.00	5.00	6.00	5.00	5.00	6.00	6.00	8.00	7.00	4.00	6.00	5.00	6.00	6.00	6.00	7.00	7.00	151.00	6.29		
119	8.00	7.00	7.00	6.00	6.00	6.00	7.00	6.00	7.00	7.00	6.00	4.00	6.00	7.00	7.00	7.00	5.00	5.00	5.00	8.00	7.00	5.00	7.00	8.00	154.00	6.42		
120	8.00	7.00	8.00	5.00	5.00	5.00	7.00	6.00	7.00	6.00	6.00	4.00	5.00	5.00	6.00	7.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	7.00	138.00	5.75		
121	2.40	9.00	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	5.00	6.00	5.00	5.00	10.00	129.90	5.41		
122	9.00	6.00	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	6.10	4.10	7.00	7.00	152.40	6.35			
123	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		
124	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	5.00	5.00	5.00	157.60	6.57		
125	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		
126	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		
127	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	3.00	150.20	6.26			
128	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		
129	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		
130	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		
131	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	3.00	5.00	3.00	3.00	9.00	3.00	134.80	5.62	
132	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	3.00	3.00	5.00	1.00	3.00	5.00	1.00	95.10	3.96	
133	9.50	9.50	8.00	7.00	6.80	6.80	10.00	10.00	7.00	5.00	1.00	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		
134	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		
135	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	4.00	5.00	6.10	3.00	3.00	3.00	6.00	137.60	5.73		
136	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		
137	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		
138	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		
139	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		
140	9.50	9.50	5.00	8.00	8.50	8.00																						

Intervention T2 Scores for 200 Veterans

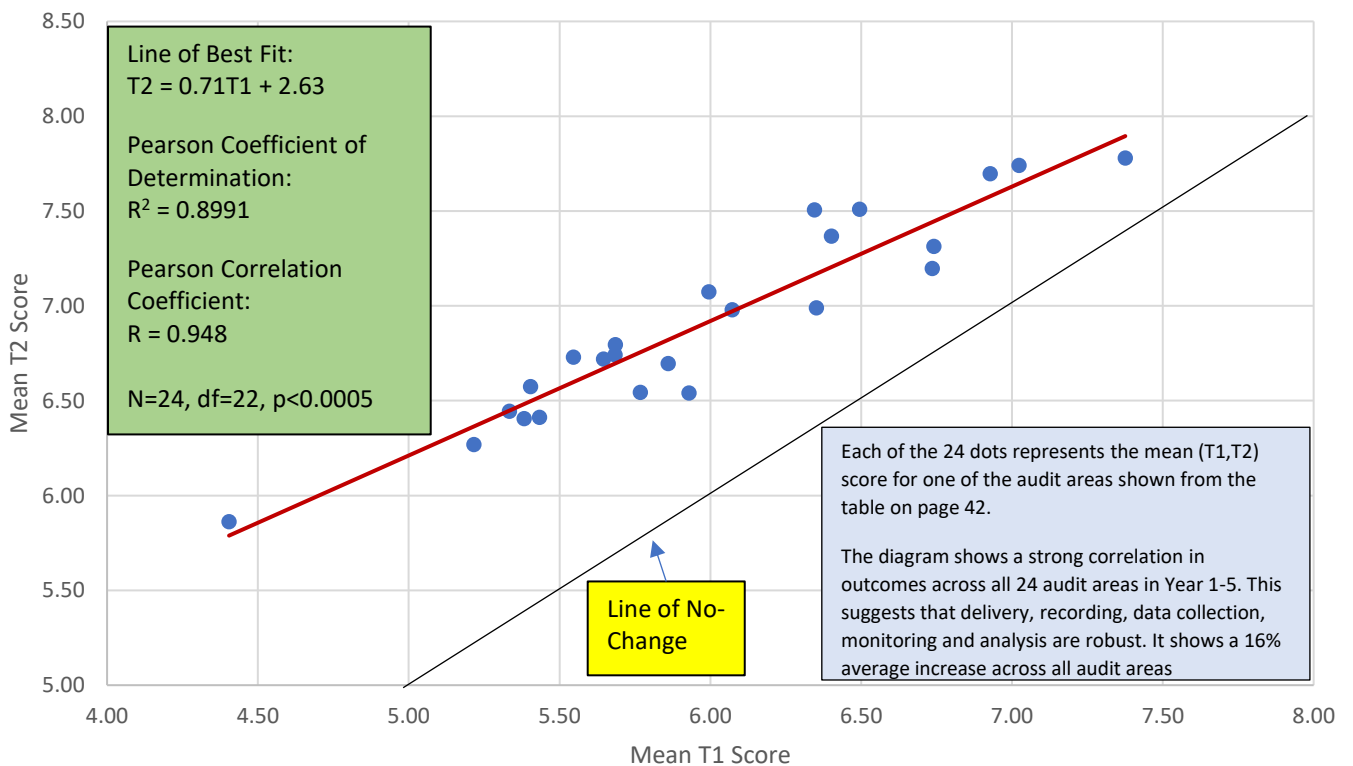
	Years 1 - 5 Intervention T2 Data																											
	Safe Environment	1 Close Relationship	Family Relationships	Wider Community	In Control	Privacy	Achieving and Future	Fel Valued	Someone To Turn To	Meaning and Purpose	Hobbies	Sleep	Isolation	Debt	Employment etc	Housing	Distressing Images	Anxiety	Stressed	Depressed	Healthy Lifestyle	Angry	Alcohol	Esteem	Wheel Total	Wheel Mean		
1	4.00	4.20			4.00	5.50	4.00	5.00	4.00	4.00	2.00	3.50									1.50				45.20	3.77		
2	9.00	9.00			6.00	6.00	7.00	5.00	4.00	4.00	7.50	4.00									9.00				74.50	6.21		
3	7.00	7.00			4.00	7.00	7.00	8.50	7.00	9.50	7.00	3.10									9.50				90.50	7.55		
4	10.00	10.00			7.00	5.00	9.00	8.00	9.00	10.00	5.00	3.00									9.00				89.00	7.42		
5	7.10	8.00			9.00	8.00	9.00	7.50	6.00	9.00	7.00	7.00	4.00								5.00				86.60	7.22		
6	9.00	9.00			8.00	5.50	8.00	6.50	9.00	7.00	6.00	8.00	6.50								8.00				90.50	7.54		
7	2.00	2.00			2.00	5.00	3.00	7.00	5.00	5.00	2.00	7.00	2.00								3.00				45.00	3.75		
8	3.00	3.00			3.00	3.00	5.00	5.00	5.00	3.00	4.00	5.00									6.00				50.00	4.17		
9	7.50	8.00			7.00	7.00	8.50	9.00	7.00	6.00	8.00	5.50	8.00								8.00				89.50	7.46		
10	5.80	9.00			5.00	4.50	7.50	5.00	6.00	4.00	5.50	6.00	5.00								5.00				68.30	5.69		
11	4.00	4.00			5.00	4.00	4.00	5.00	5.00	4.00	3.00	4.00	6.00								3.00				51.00	4.25		
12	7.00	3.00			8.00	5.00	6.00	6.00	4.00	3.00	4.50	4.00	4.00								5.00				59.50	4.96		
13	7.50	7.00			8.00	7.00	7.00	8.00	6.00	8.00	9.50	8.00	6.80								9.00				91.80	7.65		
14	5.20	5.00			4.00	4.00	5.00	5.00	8.50	7.00	6.00	3.00									1.50				63.00	5.25		
15	5.00	6.50			7.00	5.00	4.00	7.00	7.00	5.50	6.00	4.00	6.00								2.50				65.50	5.46		
16	6.00	5.00			6.00	6.00	6.00	7.50	9.00	6.00	4.00	5.00	3.50								1.50				65.50	5.46		
17	9.00	9.00			8.00	8.50	9.00	7.50	6.50	9.50	8.00	8.50	7.00								6.00				96.50	8.04		
18	9.50	9.50			9.00	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50								9.50				113.50	9.46		
19	8.00	7.00			7.00	6.80	9.00	7.00	7.00	7.00	8.00	6.00									7.00				86.80	7.23		
20	9.00	8.50			1.00	3.00	8.00	1.00	3.00	5.00	1.00	1.00	2.00								9.50				52.00	4.33		
21	9.50	7.50			6.00	8.00	6.00	8.00	7.00	7.50	8.00	7.00									7.00				89.00	7.42		
22	9.00	9.00			9.00	7.50	9.00	9.00	9.00	9.00	7.50	7.00									6.00				100.00	8.33		
23	9.00	10.00			6.50	8.50	6.00	7.00	8.50	10.00	10.00	6.00	7.00								7.00				95.50	7.96		
24	4.00	3.00			3.00	3.20	2.80	4.00	5.00	3.50	5.00	3.00	3.00								1.50				41.00	3.42		
25	7.00	8.00			7.50	7.00	6.00	7.00	8.00	9.00	9.00	9.00	9.00								9.00				95.50	7.96		
26	4.00	4.00			4.00	4.00	4.00	4.00	6.00	6.00	3.00	2.50									5.00				46.50	3.88		
27	4.00	7.00			6.00	6.00	3.00	8.00	6.00	9.00	4.00	3.00	1.00								9.00				66.00	5.50		
28	4.00	4.00			4.00	2.50	3.50	4.00	3.00	5.00	3.50	5.00	4.00								1.50				44.00	3.67		
29	3.50	5.00			4.00	5.00	4.00	5.00	4.00	6.00	2.50	2.00	1.00								1.00				43.00	3.58		
30	7.00	3.00			1.00	4.00	8.00	9.00	4.00	3.00	5.00	7.00	2.00								2.00				55.00	4.58		
31	8.00	9.00			6.00	6.00	9.50	3.00	5.00	3.00	4.00	5.00									3.00				64.50	5.38		
32	6.00	7.00			6.00	6.00	8.00	5.00	4.00	5.00	5.00	4.50	6.00								4.00				66.50	5.54		
33	4.00	3.00			7.00	7.00	3.00	6.00	7.00	7.00	8.00	9.00	2.00								3.00				66.00	5.50		
34	8.00	9.00			7.00	9.00	7.00	9.00	7.00	9.00	7.00	5.00	7.00								8.00				92.00	7.67		
35	8.00	3.50			7.00	6.00	8.00	7.00	5.00	3.00	4.00	6.00	3.00								5.00				67.30	5.61		
36	1.00	10.00			4.00	2.00	7.00	3.00	5.00	5.00	3.00	4.00	1.00								1.00				46.00	3.83		
37	3.00	3.00			3.00	3.00	3.00	3.00	3.00	3.50	5.00	5.00									5.00				42.50	3.54		
38	9.00	9.00			9.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	3.00								8.00				86.00	7.17		
39	2.00	7.00			6.00	7.00	4.00	3.00	7.00	7.00	3.00	4.00	3.00								6.00				55.00	4.58		
40	5.00	6.00			3.00	5.00	6.00	5.00	5.00	7.00	5.00	5.00	7.00								6.00				65.00	5.42		
41	8.25	7.50	6.50		7.25	7.00	6.00	6.25	6.50	7.50	6.75	5.75	5.75	6.25	5.75	6.00	6.50	7.00	6.50	6.50	6.75	6.75	6.75	6.50	6.75	160.00	6.67	
42	8.00	8.25	6.50		6.25	6.25	6.25	6.00	6.25	7.00	5.75	6.00	6.25	6.50	6.00	6.50	7.25	7.25	6.75	6.75	6.50	6.75	7.00	5.75	6.50	158.25	6.59	
43	9.50	9.50	9.50		7.75	8.75	8.25	8.75	8.75	8.75	8.75	8.50	8.00	7.25	8.75	9.50	9.50	7.00	8.00	5.75	8.25	8.00	6.75	8.25	8.75	201.75	8.41	
44	7.25	7.75	6.50		6.50	6.50	7.25	6.50	6.50	7.50	6.75	8.50	6.75	7.50	7.50	6.50	6.50	6.50	8.00	8.00	7.50	7.50	7.50	6.50	7.00	170.75	7.11	
45	9.50	7.60	7.50		7.00	7.50	8.00	7.50	8.75	8.50	8.25	8.00	7.75	7.75	7.25	8.50	8.00	7.75	7.50	8.25	8.25	8.50	7.50	8.25	8.25	191.85	7.99	
46	8.00	8.25	9.25		8.60	9.00	9.25	9.00	7.50	9.50	8.50	4.25	5.00	6.50	4.00	5.00	7.50	6.50	6.75	6.00	8.00	7.00	4.00	7.00	7.25	172.60	7.19	
47	8.00	8.75	9.00		8.50	8.60	8.14	8.75	9.25	8.75	8.50	8.00	7.75	8.00	7.75	8.00	7.75	7.00	6.75	7.75	7.50	7.00	8.00	6.50	7.50	191.74	7.99	
48	9.25	9.25	9.25		9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.25	200.50	8.35	
49	9.50	9.50	8.50		8.75	8.00	8.75	8.75	8.50	8.75	8.00	7.50	8.00	8.00	8.75	9.00	7.75	8.25	8.00	7.75	8.25	8.00	7.75	8.25	8.25	197.75	8.24	
50	7.50	3.25	3.50		5.25	4.50	5.25	5.00	6.00	3.75	4.50	2.25	7.00	5.25	8.25	4.25	8.25	4.50	5.25	5.25	3.50	3.25	5.50	9.50	5.25	126.25	5.26	
51	9.25	8.75	8.25		8.50	7.50	8.00	9.25	9.25	8.00	6.75	7.00	7.25	5.50	8.00	6.75	7.50	6.75	6.75	7.50	5.75	6.75	8.50	6.00	180.25	7.51		
52	9.50	9.50	9.50		9.50	9.50	9.50	9.50	9.25	9.25	9.25	9.25	9.25	9.25	9.25	9.00	9.25	9.00	9.00	9.25	9.25	9.25	6.75	5.50	7.00	215.50	8.98	
53	7.00	7.25	6.75		6.25	6.00	6.00	5.50	5.25	5.00	4.50	5.25	4.50	5.25	5.25	4.50	4.50	5.00	5.00	5.00	5.50	5.75	7.00	6.25	132.75	5.53		
54	9.50	9.50	9.50		9.25	9.25	9.50	9.25	9.25	9.25	9.25	8.50	8.50	8.75	9.00	9.25	9.25	9.25	9.00	7.25	7.50	8.75	8.75	6.25	8.75	212.50	8.85	
55	7.25	5.75	5.75		3.50	5.00	8.25	5.50	4.00	3.50	3.50	8.50	6.25	4.75	7.25	7.00	7.75	5.25	4.75	3.00	5.50	5.50	6.00	6.25	9.50	139.25	5.80	
56	9.50	9.50	9.50		8.00	7.75	7.00	7.50	9.00	9.25	9.25	5.25	2.50	9.00	8.25	10.00	10.00	7.00	6.50	5.00	9.25	8.50	10.00	8.00	194.50	8.10		
57	2.50	3.50	3.25		2.25	2.25	2.75	2.25	2.75	4.00	4.00	5.00	5.25	5.00	5.00	2.50	2.50	2.50	2.50	2.50	2.75	1.50	4.00	4.50	9.25	7.50	92.00	3.83
58	5.50	9.25	9.50		4.00	3.25	3.75	6.25	6.00	9.75	6.00	6.75	5.50	4.75	4.50	5.25	6.00	5.25	3.75	4.50	4.50	4.50						

121	4.00	10.00	5.00	3.00	4.30	4.70	7.40	7.00	5.00	10.00	9.00	5.00	5.00	5.00	10.00	4.40	10.00	10.00	5.00	6.90	6.90	5.50	10.00	158.50	6.60	
122	9.50	9.50	7.00	4.00	6.00	8.00	8.00	7.00	9.50	9.00	8.40	5.30	7.80	7.90	8.00	8.30	5.90	6.00	5.60	6.40	4.00	8.00	8.50	171.50	7.15	
123	7.00	5.00	7.00	5.50	5.90	5.90	5.00	7.00	7.80	7.00	7.00	5.20	5.00	5.00	7.50	6.90	3.50	5.00	5.00	5.60	4.90	6.10	7.00	141.80	5.91	
124	10.00	10.00	10.00	7.00	10.00	7.60	7.90	10.00	10.00	8.00	7.50	5.80	7.00	5.50	7.10	10.00	5.00	6.70	6.80	7.00	7.00	7.00	8.10	147.80	7.83	
125	10.00	10.00	10.00	10.00	9.00	9.00	9.00	10.00	10.00	10.00	7.00	6.50	9.00	9.00	9.00	10.00	7.00	7.00	7.50	6.80	7.50	7.00	7.50	206.60	8.61	
126	10.00	10.00	6.00	5.00	5.00	5.50	5.00	10.00	10.00	5.80	5.50	5.50	8.30	5.50	9.00	10.00	9.00	5.30	5.00	5.00	5.00	8.00	3.50	165.40	6.89	
127	8.00	10.00	4.00	4.00	4.00	10.00	6.00	7.00	10.00	5.00	7.00	7.50	7.50	10.00	10.00	10.00	5.00	5.00	5.00	8.00	8.50	8.80	5.00	170.30	7.10	
128	4.00	4.00	4.00	4.00	3.50	3.50	3.50	3.50	4.00	4.00	3.10	3.10	3.00	3.00	3.00	2.50	2.50	2.50	2.50	2.70	2.80	4.00	78.20	3.26		
129	10.00	10.00	6.50	8.50	7.00	5.00	7.00	7.00	10.00	6.30	6.30	5.00	9.00	5.00	8.00	10.00	4.00	5.50	5.50	5.30	5.00	5.00	8.00	169.40	6.89	
130	3.50	5.00	3.50	3.50	1.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.50	3.50	3.50	3.50	4.00	4.00	3.00	4.00	14.50	3.52	
131	10.00	7.80	6.90	5.00	6.00	9.00	5.00	8.00	6.00	5.00	8.50	7.00	7.00	3.00	3.00	9.50	9.50	8.00	7.80	7.10	3.00	3.00	9.00	5.00	161.10	6.71
132	7.00	10.00	10.00	3.00	3.00	5.80	4.90	9.00	10.00	6.30	3.00	3.00	3.00	5.00	5.00	5.00	3.00	3.00	3.00	3.00	3.00	5.50	3.80	7.80	125.10	5.21
133	10.00	10.00	8.40	8.00	7.00	7.00	7.10	10.00	10.00	7.20	6.50	4.00	5.00	5.00	8.00	10.00	6.40	6.50	6.40	7.20	5.10	5.50	9.00	174.40	7.27	
134	10.00	10.00	10.00	6.00	6.00	5.00	7.00	10.00	10.00	6.00	6.00	4.80	7.00	6.00	8.30	10.00	6.80	7.00	8.40	7.50	6.50	5.50	7.00	178.80	7.45	
135	9.00	10.00	7.00	6.00	6.50	6.00	7.00	9.50	10.00	6.00	5.00	4.50	5.00	5.00	7.00	10.00	7.00	6.00	6.00	7.00	5.00	6.00	8.00	163.50	6.81	
136	9.00	9.00	9.00	6.00	5.50	6.00	7.00	10.00	10.00	7.00	5.00	5.00	6.00	4.00	7.50	10.00	4.00	5.50	5.50	7.00	6.00	5.80	7.00	8.00	164.80	6.87
137	9.00	10.00	8.00	7.00	8.00	7.30	8.80	10.00	10.00	9.00	6.80	6.90	8.00	6.50	9.00	10.00	7.50	8.40	8.40	9.00	8.50	7.00	7.20	8.00	198.20	8.26
138	10.00	9.00	2.50	7.00	6.00	9.00	9.00	8.00	8.00	9.00	5.00	5.00	7.00	9.00	9.00	10.00	6.00	6.00	6.00	6.00	7.00	8.30	9.00	8.00	182.80	7.62
139	6.00	7.50	5.00	6.00	7.00	6.00	6.00	7.00	6.00	6.00	6.00	5.50	5.50	7.00	8.00	7.00	5.00	6.00	6.00	6.00	6.00	6.00	9.00	157.00	6.54	
140	10.00	9.50	5.50	9.00	8.90	8.90	5.00	9.00	10.00	6.00	8.00	5.50	7.00	5.00	8.00	10.00	9.00	6.00	6.00	6.00	6.00	8.50	6.00	179.50	7.48	
141	9.00	9.00	9.00	7.00	7.70	7.80	10.00	10.00	10.00	5.00	5.00	5.80	8.00	8.00	9.50	7.00	7.00	8.00	8.00	6.00	6.00	8.50	187.10	7.80		
142	10.00	10.00	10.00	8.00	9.00	7.50	7.10	10.00	10.00	7.80	5.30	5.00	7.00	10.00	10.00	10.00	5.50	5.00	5.00	7.50	5.00	7.00	9.00	185.70	7.74	
143	6.50	6.50	5.00	5.00	5.00	5.00	4.00	4.00	7.00	5.00	7.00	3.50	3.50	3.50	3.50	4.00	4.00	5.50	5.50	5.50	5.50	7.50	7.00	123.50	5.15	
144	8.50	8.70	9.00	7.00	9.00	9.00	7.00	9.00	9.00	8.00	8.00	8.00	8.00	7.00	7.00	7.00	5.00	7.00	5.50	6.00	7.00	6.00	9.00	9.00	182.70	7.61
145	7.00	5.00	5.00	5.00	5.00	7.00	6.30	5.00	6.50	7.00	7.00	4.00	4.00	5.00	3.80	6.00	4.00	4.90	4.90	4.90	7.00	7.00	7.00	135.30	5.64	
146	6.00	5.00	4.50	6.30	6.00	6.00	6.00	6.00	6.00	6.00	7.00	5.00	4.00	4.00	6.00	7.00	7.00	6.50	6.50	6.50	5.00	7.00	6.00	143.80	5.99	
147	8.00	7.00	7.00	6.00	5.50	5.50	5.50	6.00	7.00	7.00	7.00	5.00	5.00	5.00	5.00	6.00	6.50	6.80	6.70	6.50	9.00	7.00	8.00	158.00	6.58	
148	8.00	7.00	5.00	6.00	5.00	7.00	6.00	6.00	6.00	6.00	8.00	4.80	5.00	6.00	5.00	6.00	5.60	5.60	5.00	7.00	6.00	7.00	7.00	145.00	6.04	
149	9.00	10.00	10.00	7.00	8.00	7.00	7.00	10.00	10.00	8.00	7.00	6.00	5.00	5.00	5.00	7.00	8.00	8.00	8.00	8.00	6.50	9.00	8.00	183.50	7.65	
150	8.00	8.00	8.50	7.50	7.50	7.50	7.00	7.00	9.00	7.00	7.00	5.00	6.00	7.00	8.00	8.00	6.90	6.90	6.90	9.00	8.00	9.00	7.00	175.80	7.33	
151	7.30	7.30	7.30	6.00	6.00	6.50	7.00	8.50	8.00	6.50	7.00	5.00	5.00	6.00	7.00	7.00	5.00	6.00	6.00	7.00	6.00	9.00	8.00	194.50	7.48	
152	8.00	7.00	7.00	5.00	6.00	5.00	5.00	7.00	6.00	5.00	7.00	4.00	5.00	5.00	7.00	7.00	1.00	5.00	5.00	9.00	5.50	9.00	6.00	145.50	6.06	
153	8.00	4.80	4.40	4.50	4.30	6.00	5.00	5.00	5.00	5.00	7.00	3.80	5.00	5.00	5.00	5.00	6.00	6.00	6.00	8.00	8.00	5.00	9.00	139.00	5.79	
154	7.00	7.00	5.00	5.50	5.50	5.50	5.00	6.00	5.00	5.00	7.00	5.00	5.00	6.80	5.00	7.00	5.50	5.50	5.50	8.00	8.00	8.00	7.00	145.30	6.05	
155	8.00	8.00	7.00	7.00	7.00	7.00	7.00	8.00	8.00	8.00	9.00	5.00	7.00	7.00	5.00	7.00	8.00	8.00	8.00	8.50	8.50	9.00	7.50	180.50	7.52	
156	10.00	10.00	10.00	7.00	9.00	9.00	9.00	10.00	10.00	8.50	8.50	8.50	10.00	9.00	9.00	9.50	7.00	8.00	5.00	8.00	5.00	10.00	9.00	204.00	8.50	
157	6.00	9.00	9.00	5.00	4.50	4.50	5.00	7.00	9.50	9.50	9.00	9.00	9.00	9.00	3.00	3.00	3.50	4.00	3.50	3.50	4.00	5.00	8.00	7.00	144.50	6.02
158	9.00	10.00	9.00	7.00	6.00	8.00	6.00	9.00	10.00	7.00	9.00	7.00	10.00	9.00	8.00	9.00	6.00	9.00	9.00	7.00	9.00	9.00	8.00	199.00	8.29	
159	9.00	9.00	6.00	5.00	6.00	6.00	7.00	9.00	8.00	9.00	8.00	5.00	7.00	7.00	8.00	9.00	7.00	6.50	6.50	9.00	9.00	6.50	8.00	176.00	7.33	
160	7.00	3.00	2.00	3.00	4.00	7.00	6.00	9.00	10.00	5.00	3.00	4.00	3.00	7.00	9.00	10.00	6.00	3.00	3.50	4.00	2.50	10.00	4.00	130.00	5.42	
161	8.00	5.00	4.00	4.00	4.00	7.00	7.00	7.00	7.00	5.00	5.00	7.00	4.00	7.00	8.00	6.00	8.00	6.00	5.00	6.00	6.00	7.00	10.00	6.00	151.00	6.29
162	10.00	8.00	7.00	9.00	9.00	8.00	9.00	8.00	9.00	10.00	8.00	10.00	6.00	9.00	7.00	7.00	7.00	6.00	6.00	8.00	8.00	10.00	8.00	195.00	8.13	
163	10.00	10.00	9.00	8.00	8.00	10.00	10.00	10.00	10.00	10.00	8.00	8.00	8.00	10.00	9.00	10.00	7.00	7.00	8.00	6.00	7.00	6.00	7.00	207.00	8.63	
164	10.00	9.00	9.00	10.00	9.00	8.00	9.00	10.00	9.00	9.00	8.00	8.00	8.00	10.00	9.00	10.00	10.00	8.00	10.00	9.00	9.00	10.00	10.00	219.00	9.13	
165	8.00	9.00	8.00	8.00	7.00	8.00	8.00	8.00	8.00	9.00	8.00	9.00	9.00	8.00	8.00	9.00	9.00	8.00	8.00	9.00	9.00	10.00	9.00	201.00	8.38	
166	10.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	8.00	9.00	9.00	9.00	9.00	8.00	8.00	8.00	8.00	8.00	9.00	9.00	210.00	8.75	
167	9.00	9.00	8.00	8.00	8.00	8.00	8.00	8.00	9.00	9.00	9.00	8.00	8.00	8.00	8.00	9.00	9.00	9.00	9.00	10.00	8.00	9.00	8.00	207.00	8.63	
168	10.00	9.00	10.00	8.00	8.00	8.00	8.00	8.00	8.00	9.00	8.00	10.00	7.00	5.00	8.00	7.00	7.00	9.00	9.00	9.00	8.00	8.00	9.00	199.00	8.29	
169	8.00	9.00	9.00	8.00	8.00	7.00	8.00	7.00	7.00	8.00	7.00	9.00	8.00	9.00	9.00	9.00	8.00	8.00	8.00	9.00	8.00	9.00	8.00	196.00	8.17	
170	10.00	10.00	10.00	7.00	7.00	7.00	9.00	9.00	10.00	10.00	7.00	8.00	9.00	9.00	7.00	10.00	9.00	8.00	8.00	9.00	9.00	10.00	9.00	210.00	8.75	
171	10.00	8.00	8.00	7.00	7.00	7.00	8.00	7.00	7.00	7.00	8.00	7.00	7.00	7.00	9.00	9.00	7.00	7.00								

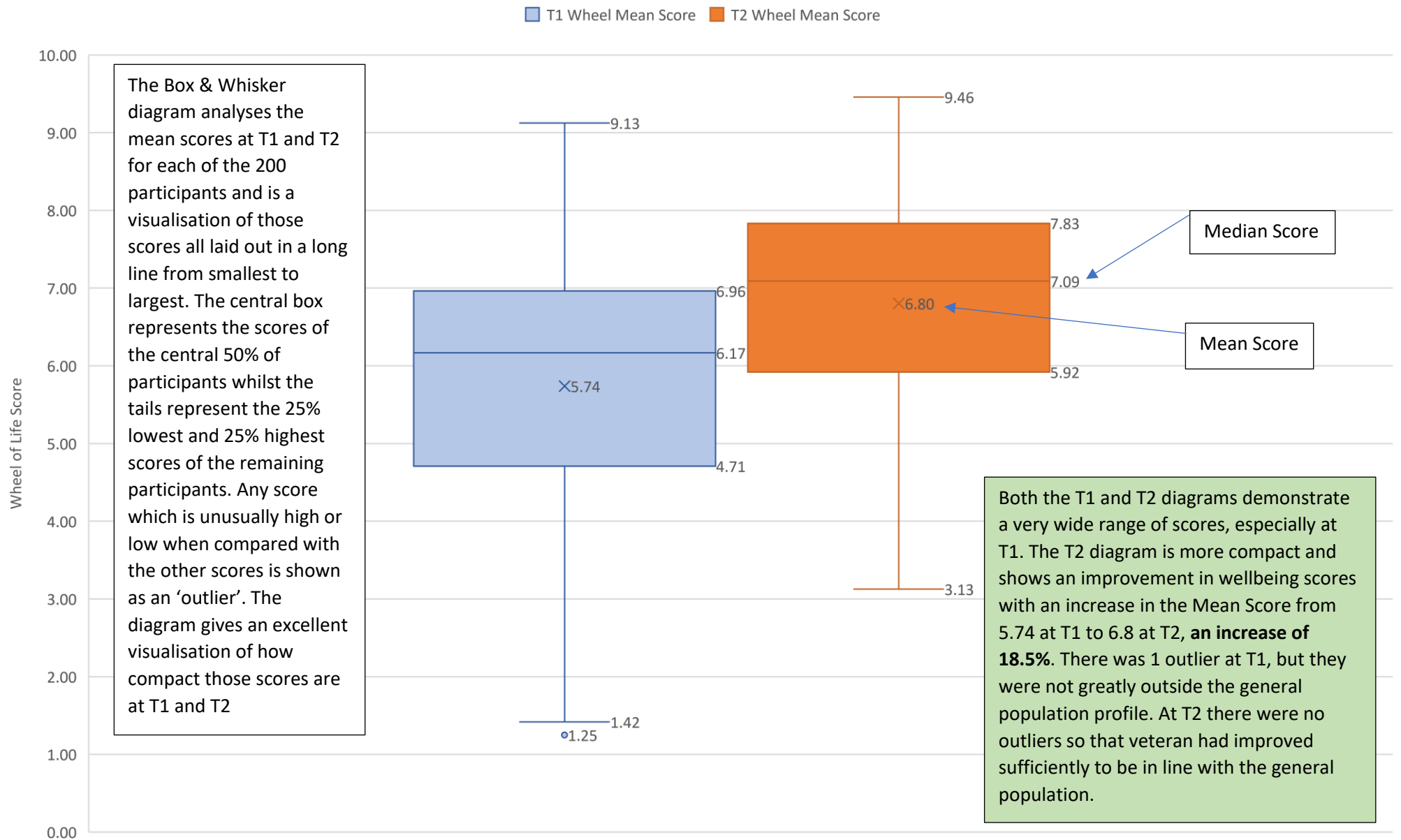
A Spiders-Web Diagram Comparing the Mean T1 & T2 Scores for 200 Veterans in Years 1-5 in each of the 24 Audit Areas



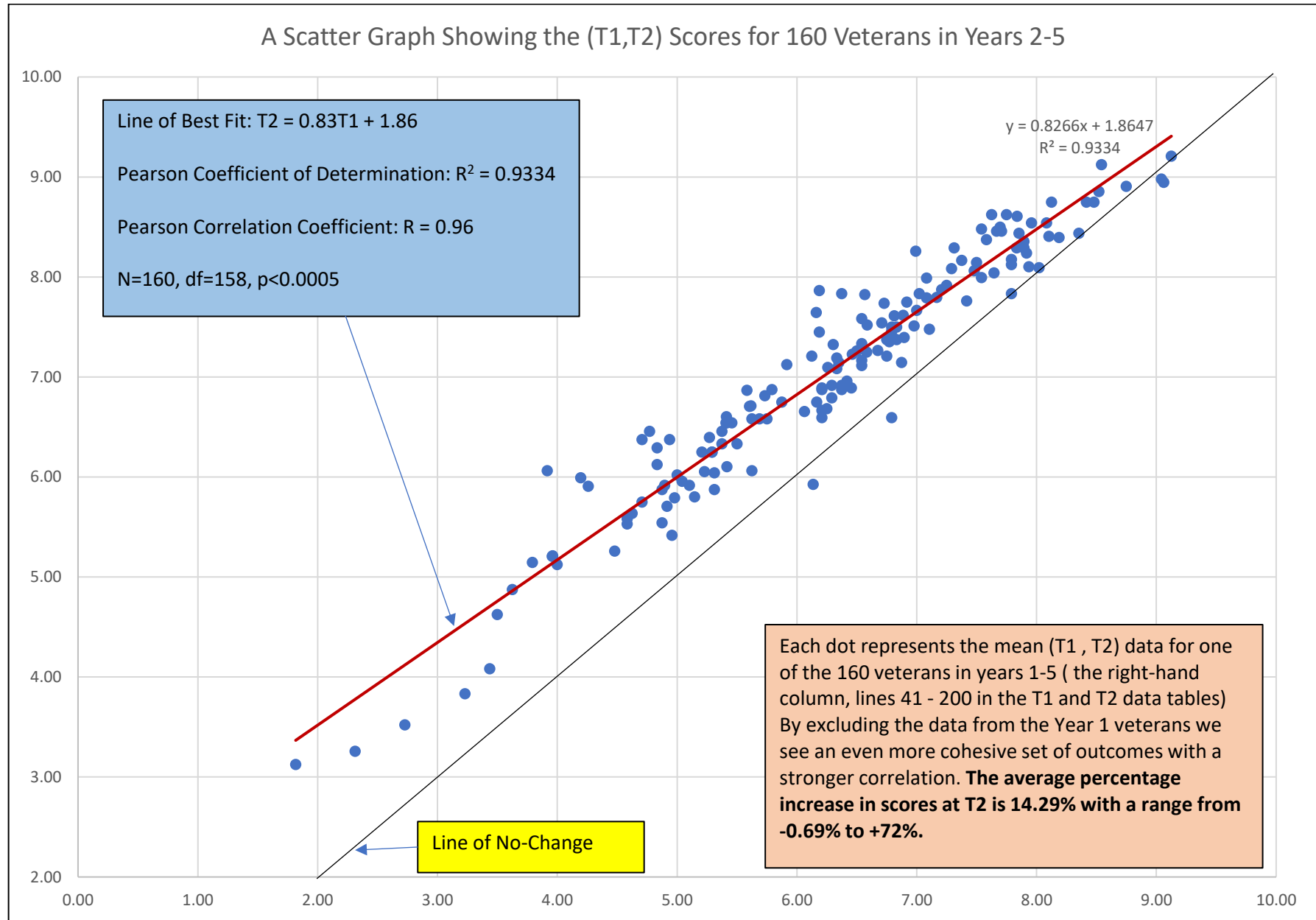
A Scatter Diagram Comparing the Mean (T1,T2) Scores in each of the 24 Audit Areas for 200 Veterans in Years 1-5



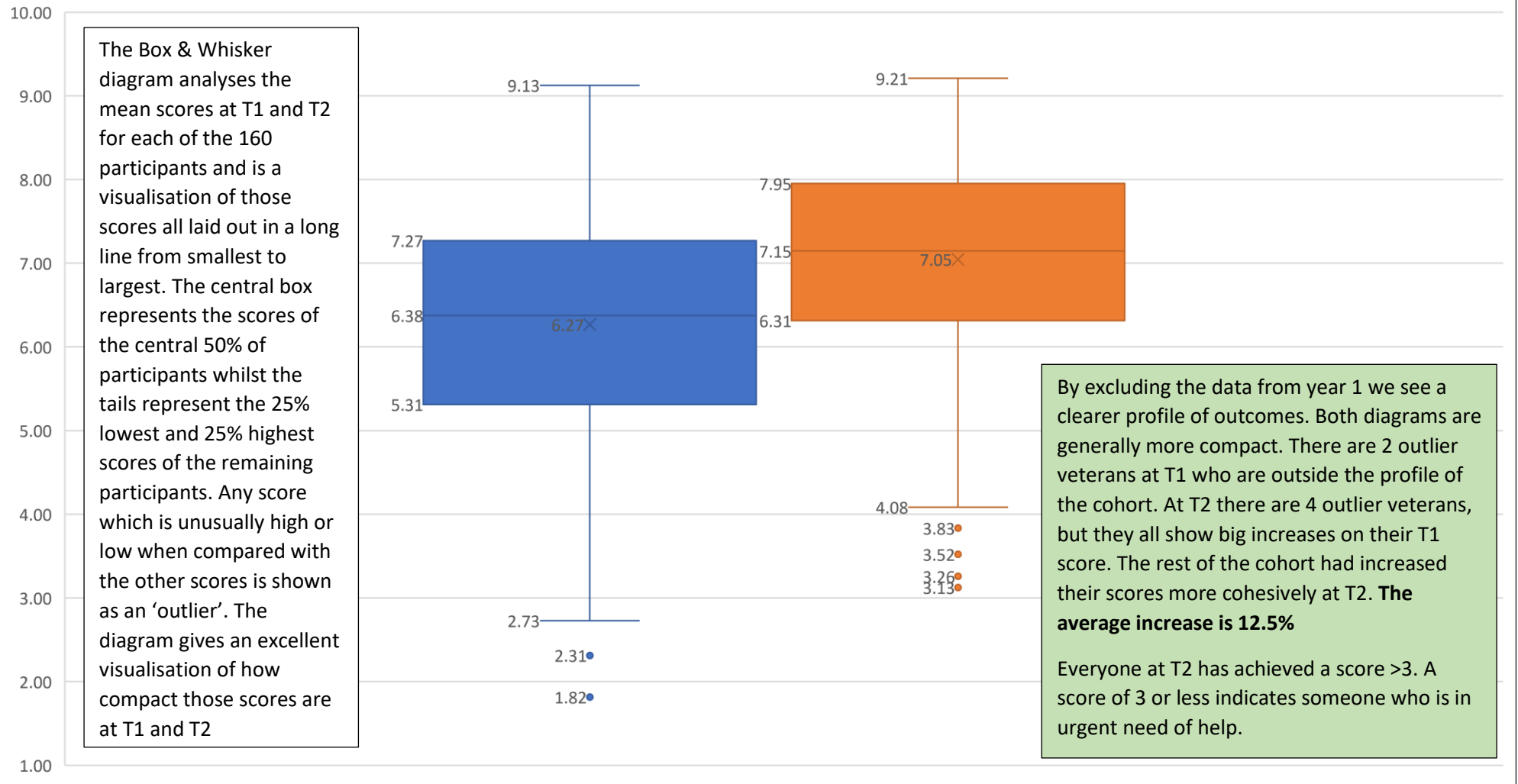
A Box and Whisker Diagram Comparing the Spread of the T1 and T2 Scores for 200 Veterans in Years 1-5



Examination of full 24 audit area data for the 160 veterans in years 2-5 (i.e. removing year 1 data)

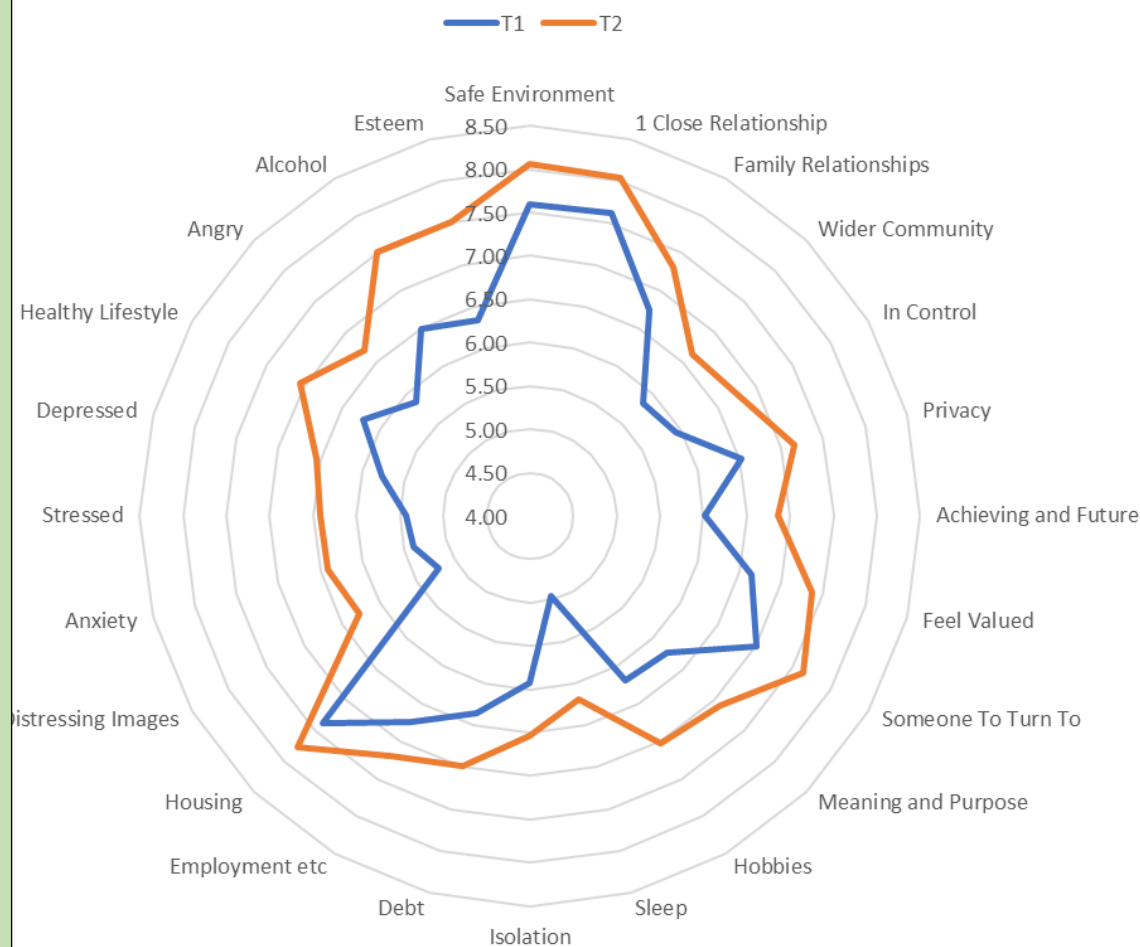


A Box and Whisker Diagram Comparing the Distribution of the T1 and T2 Scores for 160 Veterans in Years 2-5



Years 2-5 Data			
	T1	T2	% Increase
Safe Environment	7.60	8.06	6.06
1 Close Relationship	7.61	8.04	5.67
Family Relationships	6.74	7.31	8.50
Wider Community	5.85	6.64	13.63
In Control	5.94	6.78	14.12
Privacy	6.53	7.16	9.67
Achieving and Future	6.01	6.86	14.14
Feel Valued	6.64	7.37	11.05
Someone To Turn To	7.02	7.63	8.79
Meaning and Purpose	6.23	7.09	13.89
Hobbies	6.20	7.03	13.42
Sleep	4.95	6.18	24.81
Isolation	5.93	6.54	10.34
Debt	6.35	6.99	10.06
Employment etc	6.74	7.20	6.86
Housing	7.38	7.78	5.50
Distressing Images	5.22	6.27	20.19
Anxiety	5.38	6.41	19.02
Stressed	5.43	6.41	18.02
Depressed	5.77	6.54	13.46
Healthy Lifestyle	6.22	7.07	13.69
Angry	5.86	6.70	14.28
Alcohol	6.49	7.51	15.65
Esteem	6.35	7.51	18.31
Wheel Total	150.41	169.09	309.11
Wheel Mean	6.27	7.05	12.88

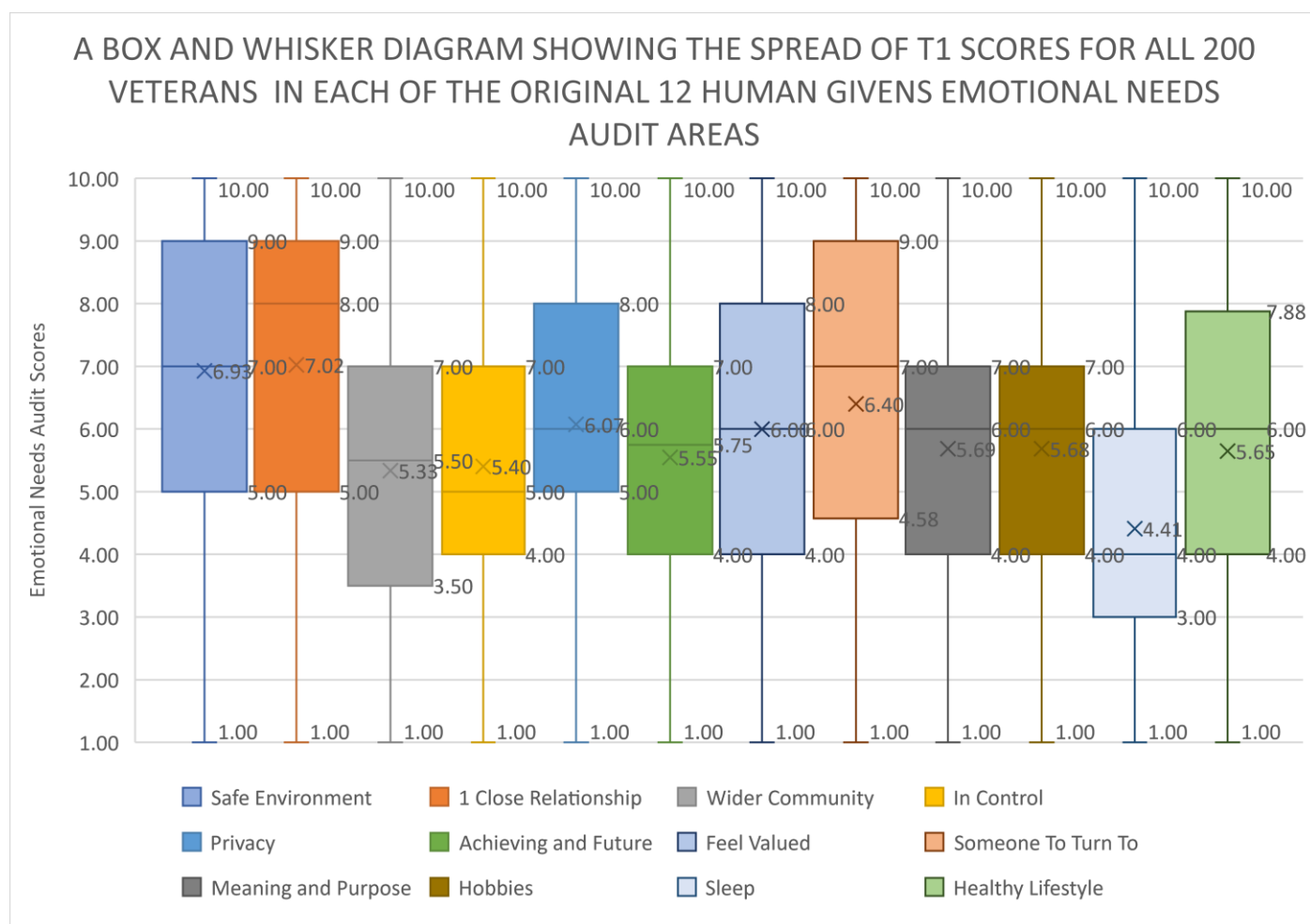
A Spiders-Web Diagram showing the Mean T1 and Mean T2 scores for 160 Veterans in Years 2-5 in each of the 24 Audit Areas



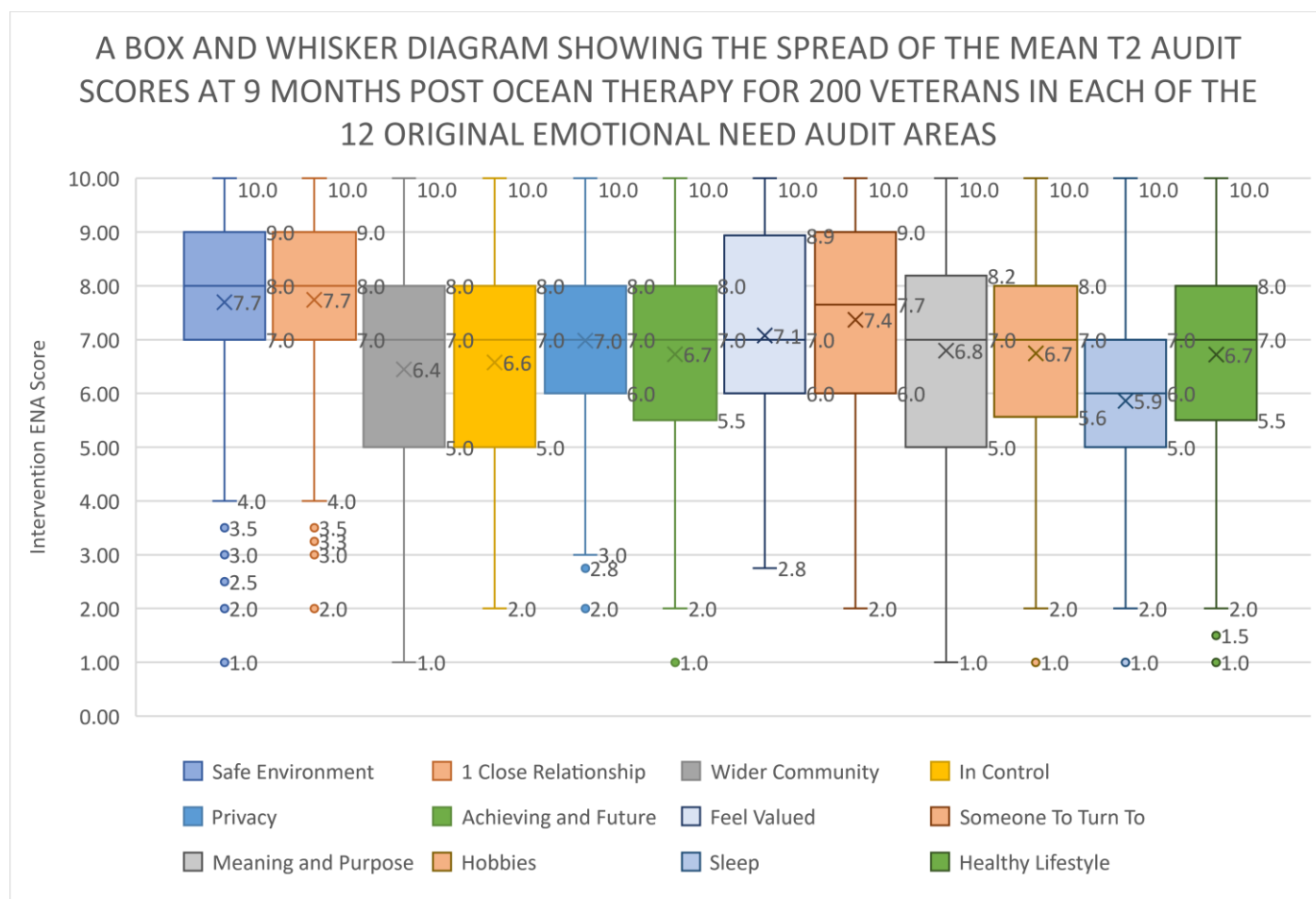
Surf Action hoped that its programme would benefit those with the lowest initial wellbeing scores the most, so we also analysed the data in order to extract the relevant information to examine this. The outcomes by group are summarised in the table below. **It demonstrates that Surf Action's programme does significantly benefit those with the lowest initial wellbeing scores the most.**

% Mean T1 Score Increase For 200 Veterans in Years 1-5 Broken Down into T1 Bands					Graduated % Mean T1 Score Increase For 160 Veterans in Years 2-5 Broken Down into T1 Bands				
Mean T1 Score Boundary	Number of Veterans	Mean T1	Mean T2	% Mean T1 Increase	Mean T1 Score Boundary	Number of Veterans	Mean T1	Mean T2	% Mean T1 Increase
T1 < 2	6	1.6	4.2	154.24	T1 < 2	1	1.8	3.1	72.0
T1 < 3	19	2.1	4.4	107.35	T1 < 3	3	2.3	3.3	44.4
T1 < 4	36	2.8	4.9	73.24	T1 < 4	11	3.3	4.5	34.9
T1 < 5	61	3.5	5.3	49.93	T1 < 5	30	4.2	5.3	27.4
T1 < 6	95	4.2	5.7	36.14	T1 < 6	60	4.8	5.9	21.8
T1 < 7	152	5.1	6.3	24.44	T1 < 7	112	5.6	6.5	16.0
T1 < 8	186	5.5	6.7	20.37	T1 < 8	146	6.1	6.9	13.7
T1 < 9	197	5.7	6.8	19.01	T1 < 9	157	6.3	7.0	12.4
T1 < 10	200	5.7	6.8	18.55	T1 < 10	160	6.3	7.0	12.5

Outcomes in the 12 original 'Emotional Needs Audit' areas for 200 veterans in years 1-5.



The above diagram demonstrates that at T1, about one quarter of the participants scored 4 or less in all but 4 of the 12 Emotional Needs audit categories and this highlights considerable stressors in their lives. The population is cohesive because there are no outliers shown.

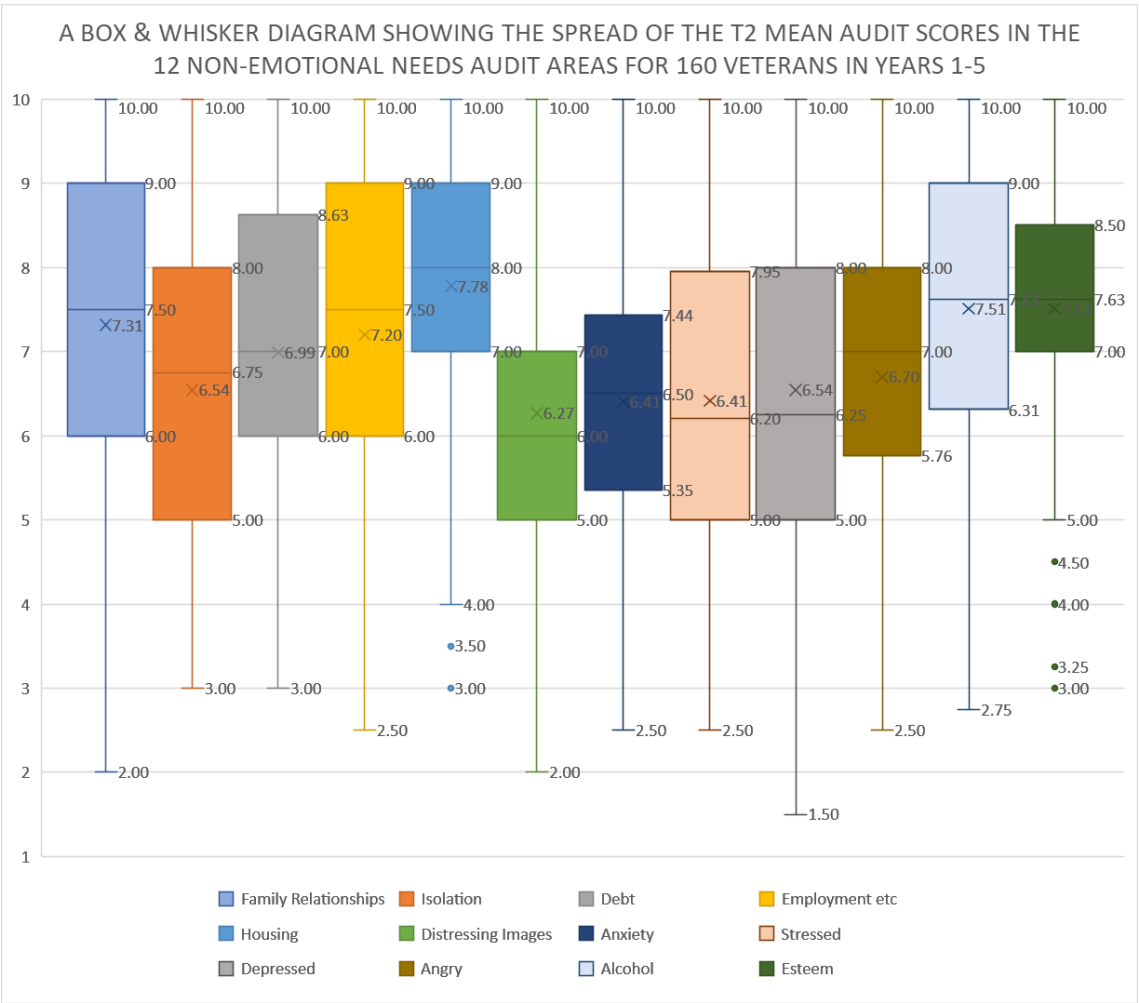
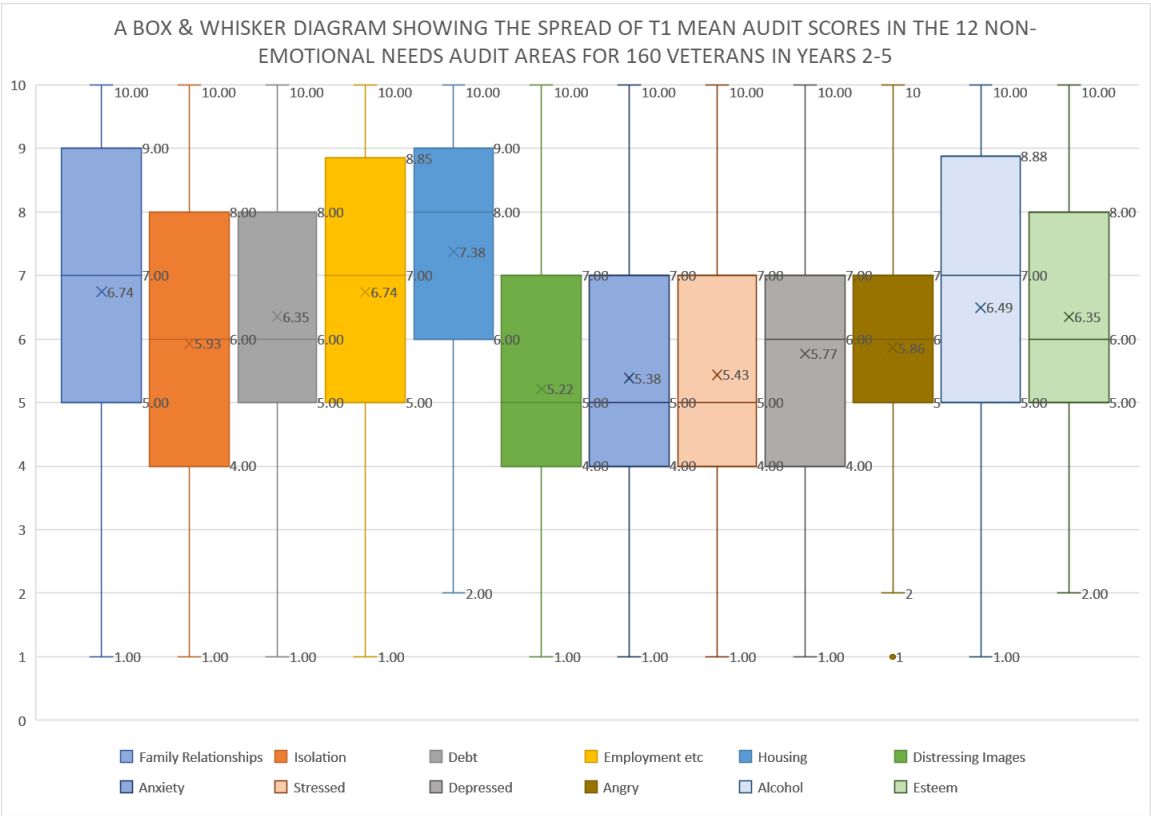


The diagram above shows that the vast-majority of scores across all the original audit areas have significantly increased and become more cohesive. At the lower end there are quite a few outliers which shows that there were a relatively small number of veterans who had relatively low scores at T2 and they were now outside the T2 score profile of the rest of their cohort. Many of them have still shown good increases in their wellbeing scores from a very low level.

COMPARISON OF MEAN T1 AND T2 EMOTIONAL NEEDS AUDIT SCORES IN THE 12 ORIGINAL AUDIT AREAS FOR 200 VETERANS IN YEARS 1-5												
Audit Area	Safe Environment	1 Close Relationship	Wider Community	In Control	Privacy	Achieving and Future	Feel Valued	Someone To Turn To	Meaning and Purpose	Hobbies	Sleep	Healthy Lifestyle
T1 Mean Score	6.93	7.02	5.33	5.40	6.07	5.55	6.00	6.40	5.69	5.68	4.41	5.65
T2 Mean Score	7.70	7.74	6.45	6.57	6.98	6.73	7.08	7.37	6.80	6.74	5.86	6.72
% sustained increase at 9 months	11.11	10.24	20.85	21.66	14.94	21.36	18.02	15.12	19.54	18.60	33.01	19.03

This table demonstrates excellent sustained wellbeing score increases across all 12 original 'Human Givens Emotional Needs Audit' areas ranging from 10% to 33%. The outcome for sleep is very encouraging as it is a central stressor for many psychological problems. These outcomes as demonstrated in the above table and two associated box and whisker diagrams are very pleasing across all audit areas and are indicative of a general sustained increase in wellbeing scores across the participating 200 veterans. The average increase is a very pleasing 18.6%.

Outcomes for the 160 veterans in the 12 additional audit areas introduced in year 2 covering years 2-5



COMPARISON OF MEAN T1 AND T2 EMOTIONAL NEEDS AUDIT SCORES IN THE 12 ADDITIONAL AUDIT AREAS FOR 160 VETERANS IN YEARS 2-5												
Audit Area	Family Relationships	Isolation	Debt	Employment etc	Housing	Distressing Images	Anxiety	Stressed	Depressed	Angry	Alcohol	Esteem
Mean T1 score	6.74	5.93	6.35	6.74	7.38	5.22	5.38	5.43	5.77	5.86	6.49	6.35
Mean T2 score	7.31	6.54	6.99	7.20	7.78	6.27	6.41	6.41	6.54	6.70	7.51	7.51
% increase	8.50	10.34	10.06	6.86	5.50	20.19	19.02	18.02	13.46	14.28	15.65	18.31

The table above and the 2 associated box and whisker diagrams, demonstrate an average 13% sustained increase in wellbeing scores across all audit areas. Several of these audit areas such as housing, employment etc are areas which are difficult and slow to influence and which we would not be expected to sort out or improve quickly via signposting however it may be the fact that improved wellbeing within the human givens audit areas allows a greater level of perspective and resilience when the veterans are examining other stressors within their lives.

CONCLUSIONS

This analysis was carried out with the hypothesis that **‘Surf Action’s surf therapy provision has a positive and sustainable effect on the wellbeing of participants’**. The analysis looked for evidence which supported this and for evidence which might support the opposing null-hypothesis, namely that ‘Any positive effect in wellbeing as a result of participation can be attributed to other outside environmental/social factors’. The data was examined in a spreadsheet with a line for each of the 200 veterans containing their raw T1 and T2 wellbeing scores in each of the audit areas. This allowed the calculation of their mean T1 and mean T2 score across all the audit areas (horizontally). Each column then had the raw T1 and T2 data in each audit area for all 200 participants. This allowed the calculation of mean T1 and mean T2 scores in each audit area. Standard deviations and variances were calculated across each line and column. A wide range of diagrams were generated in order to examine the data and they have all been included and commented on in the sections above;

- **These diagrams and the associated analysis have demonstrated that the outcomes are statistically very significant and justify the rejection of the ‘null-hypothesis’.**
- The group outcomes 9-months after the completion of the ocean-therapy courses show a statistically significant increase and sustainability in wellbeing scores both by individual veteran and audit area (pages 22-26).
- Those who showed the lowest wellbeing scores at T1 benefited the most from the intervention (page 27)
- The group outcomes in the Human Givens 12-area Emotional Needs audit showed an average sustained increase of 18.6% in across all audit areas (pages 27-28).
- The group outcomes in the 12, non-Human Givens audit areas from years 2-5, showed an average 13% sustained increase even in those areas which are the most difficult to practically improve. This indicates improved resilience made it easier to participants to face-up to challenging problems (pages 29-30).
- The average sustained increase in wellbeing scores per veteran was an excellent 18.5% (page 23).

We can justifiably say that;

- Providing a mixture of high intensity water-sports, physical activities and family activities, PTSD information sessions and facilitating access to therapy over the last 5 years, Surf Action has made a demonstrable improvement in the quality of the veterans’ lives. Sustained improvements were evidenced in all 24 audit areas and endorsed by qualitative and quantitative data.

- 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 and similar spectrum conditions, 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 and other similar spectrum conditions in their day-to-day lives with the associated benefits to family life and bonds.

The Surf Action project has developed over the last 5 years and is now a research backed, effective and cost-efficient route-pathway to help people 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. By giving a significant and sustained boost to the physical and emotional resilience of the participants, they are better able to deal with any problems they face in their lives without feeling overwhelmed and hopeless.

Surf Action will continue to support the armed forces community and will seek to extend its provision to help boost the physical and psychological resilience and wellbeing of the wider community where many of the same problems are manifest.

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



Surf Action, Room 6, Carnon Building, Wilson Way, Redruth, Cornwall, TR15 3RS
T: 01209 210350 | Email: info@surfaction.co.uk
www.surfaction.co.uk | Registered Charity No. 1140191

