

Green Wellbeing Alliance

Evaluation

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## Executive Summary

The Green Wellbeing Alliance is a network of organisations that provide therapeutic 'green wellbeing' outdoor activities across Sussex, to benefit vulnerable groups. The five founding members of the Alliance have received funding from Brighton and Hove City Council (2020-2025) to expand these activities and reach new audiences.

This evaluation found that participants evidenced strikingly high satisfaction with Green Wellbeing Alliance programmes, and provided glowing feedback describing how much they had enjoyed the programmes, how well run they were and the positive impact they had on participants' wellbeing.

The evaluation found that participants' wellbeing improves noticeably over the period of their engagement with Green Wellbeing Alliance projects, with strong indications that it is the engagement itself that leads to this change.

The evaluation provides evidence that Green Wellbeing Alliance projects have long-lasting, positive impact on participants:

- Feeling optimistic;
- Feeling useful;
- Feeling relaxed;
- Dealing with problems;
- Thinking clearly;
- Feeling close to other people;
- Being able to make up their minds;
- Feeling happy;
- Spending time outside;
- Increasing their skills/knowledge.

We recommend that the Green Wellbeing Alliance continues to use SWEMWBS (with additional questions), to evaluate its impact.

## Introduction

### What is The Green Wellbeing Alliance?

The Green Wellbeing Alliance is a network of organisations that provide therapeutic outdoor activities across Sussex. Sussex has a vibrant and diverse community of food growing & nature-based projects, and Green Wellbeing Alliance members focus explicitly on delivering therapeutic

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activities that help people with complex needs to improve health, wellbeing and quality of life. Members deliver 'green wellbeing' (also known as 'green care'); nature-based activities, designed and structured as health or social care interventions, to benefit vulnerable groups.

The Green Wellbeing Alliance works with over 600 vulnerable adults (and similar numbers of other participants) per year, with the majority of its participants engaging via referrals from professionals and support services.

Projects include activities such as:

- Short nature and wellbeing courses;
- Volunteer days;
- Outdoor activities for groups of people with similar experiences.

The five founding members of the Alliance (Brighton and Hove Food Partnership, which co-ordinates the network; The Centre for Ecotherapy; Grow; Plot 22; and Rock Farm) have received funding from Brighton and Hove City Council (2020-2025) to expand these activities and reach new audiences.

### **What were the aims of this evaluation?**

Those members of the Green Wellbeing Alliance in receipt of this funding commissioned Community Works to support them to develop and pilot a shared approach to evaluation, which would enable the Alliance to identify and quantify its collective impact. The work was undertaken by Community Works' Associate, Rachel Papworth, of [Papworth Research and Consultancy Ltd.](#)

This report details the piloted approach, presents the findings of the pilot evaluation and makes recommendations for ongoing evaluation.

### **What did this involve?**

Rachel facilitated a workshop with Green Wellbeing Alliance members to consider:

- Current evaluation approaches and tools;
- What else members wanted to measure;
- Options, logistics and feasibility.

The outcomes of this workshop are documented at Appendix One of this report.

In summary, the approach that was piloted was to use the Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS), with additional questions (including quantitative questions in SWEMWBS format and open-ended questions, which varied between groups and over time).

The “before” and “after” questionnaires can be accessed here: <https://forms.gle/usudBrSTzXY7rbxK8> and <https://forms.gle/yaaBzjuHYFoz33v19>, respectively.

Where possible, the evaluation collected “before” and “after” data, to enable an assessment of “distance-travelled”. However, this was not appropriate for all Green Wellbeing Alliance projects. While, for example, Grow, The Brighton and Hove Food Partnership, Wild Mind and the Centre for Ecotherapy deliver programmes with clear start and end points, Rock Farm and Plot 22 deliver more open-ended and/or drop-in programmes that don’t lend themselves as easily to “before” and “after” measurement. The majority of matched “before” and “after” data gathered for this evaluation was collected through the Changing Chalk project, which is delivered by the Brighton and Hove Food Partnership and Grow. Changing Chalk is an eight-week programme focused on the history, value and conservation of chalk grassland.

Members of the Green Wellbeing Alliance collected data from 74 participants at the start of their participation, and from 63 at a later point or the end of their participation. These included 37 participants who provided data at two points.

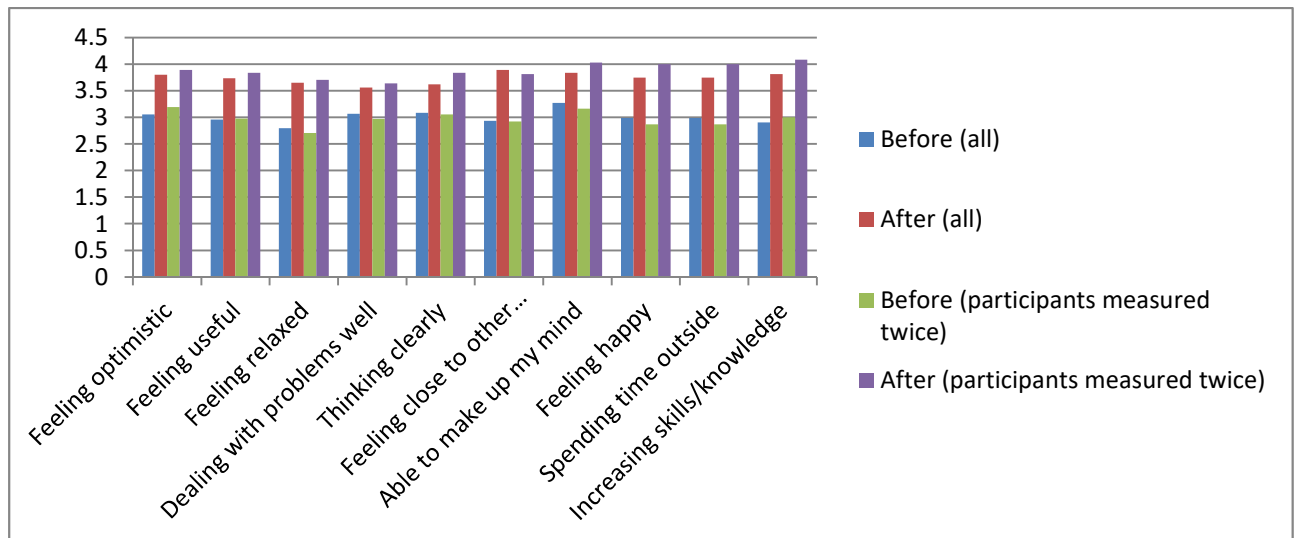
## Evaluation findings<sup>1</sup>

The chart below shows mean scores on each measure for all participants who completed “before” questionnaires, all who completed “after” questionnaires; and the mean “before” and “after” scores for those participants who completed questionnaires at two points. It clearly shows that “after” scores were higher than “before” scores on all measures, i.e. participants’ mental wellbeing improved over the period of their involvement with Green Wellbeing Alliance programmes.

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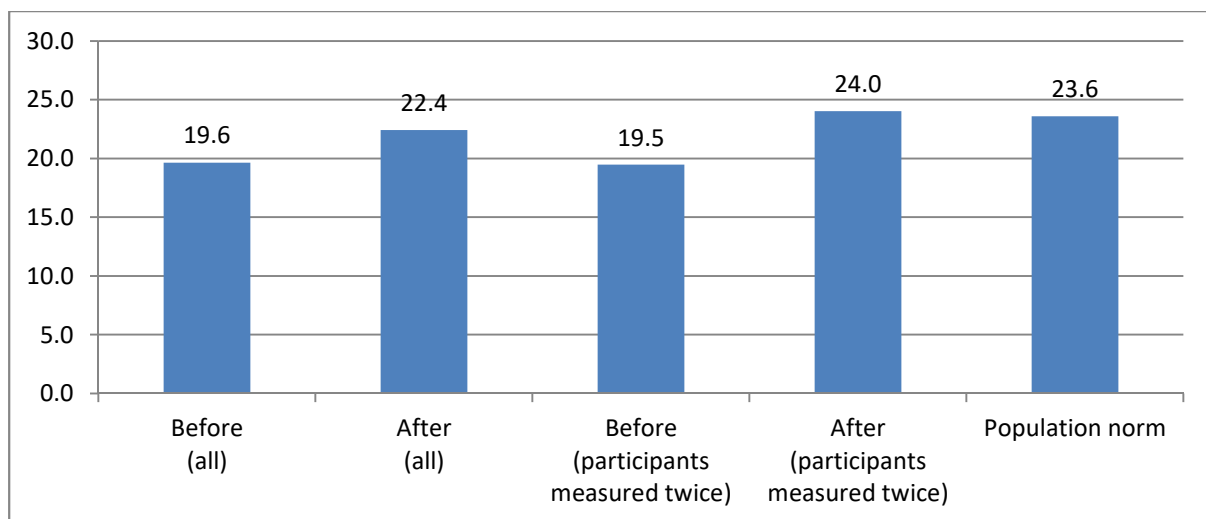
<sup>1</sup> The number of responses was too small to make meaningful comparisons by demographic sub-groups, so all analysis was undertaken on the full datasets.

**Figure 1: Mean scores by measure**



The chart below shows the mean converted metric overall SWEMWBS wellbeing score value from all “before” questionnaires, all “after questionnaires” and the “before” and “after” scores for those participants who provided data at two points in time.

**Figure 2: SWEMWB wellbeing scores**



The mean converted metric<sup>2</sup> overall SWEMWBS wellbeing score value for participants who completed “before” questionnaires was 19.6, with a standard deviation of 3.1. This compares to a population norm mean of 23.6 and a standard deviation of 3.9. This indicates that, as we would

<sup>2</sup> Raw scores from the short WEMWBS have to be converted, using a table provided by Warwick Medical School, to make them compatible with the Rasch psychometric model, and comparable to other studies.

expect, at the start of participation in a GWBA project, participants have lower wellbeing than the general population to an extent that would be meaningful to themselves, and their mean score indicates “low wellbeing” and “possible mild depression”.

The mean converted metric value wellbeing score of participants who completed “after” questionnaires was 22.4, with a standard deviation of 6.4. This indicates that, at the end of participation in a GWBA project, participants’ wellbeing is no longer different from the general population to an extent that would be meaningful to themselves. Their mean score indicates “medium wellbeing” and is not indicative of depression.

Among those participants who provided data twice, there is a statistically significant difference between the mean converted metric overall SWEMWB wellbeing score value at the “before” and “after” point<sup>3</sup>. This means that we can be confident that the change in mean scores did not occur by chance.

The WordCloud below was generated from responses to the question “Any other comments on your expectations for this group or the wider Changing Chalk scheme?” (which was put to Changing Chalk participants only). “Connection” and “Nature” stand out.

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<sup>3</sup> A two sample t-test was performed to compare wellbeing where participants provided data at both points. There was a significant difference in wellbeing at the 5 per cent level between the “before” group (M = 19.6, SD = 3.1) and the “after” group (M = 24.0, SD = 3.1);  $t(37) = 5.7$ ,  $p = 1.9E-06$ .



*them. I feel more in touch with nature and it has really helped me deal with my anxiety and stress."*

- Meeting new people:
  - *"I've met some really lovely people who I hope to stay in contact with."*
- The groups being well led, and feeling safe:
  - *"I was made to feel welcome on arrival, my contributions were acknowledged and my experiences were validated. The group was well led and felt safe. Information was provided in advance and the sessions themselves were well prepared and delivered. There was an option to do as much of or as little as ability, mood and energy levels permitted on the day. Support was available and needs anticipated by committed volunteers."*
- Improvement to participants' mental health:
  - *"I started this course with high levels of anxiety and concern and worry. I felt totally burnt out...I finished the course calm, less reactive, less worried and focused on my future. Thank you."*





less time travelling between sites, one would have liked a protocol for team member interaction, and one would have liked more structure. An open-ended question at the end of the questionnaire inviting further comments, elicited more positive feedback, including the following:

- *"I feel as though tiny roots are emerging into the beautifully-maintained soil at plot 22."*
- *"This is a wonderful initiative and I would love to do more activities."*
- *"So good to meet people that are also struggling, but we don't have to talk about the struggles and can connect and focus on nature as a good and healthy distraction."*
- *"I love the space and all I've gained from being there - the poetry; colour; shared tasks and food. I feel isolated quite easily - unconnected to others through job or family, so it's been a place to feel part of something important. Trust will grow from this."*
- *I would not hesitate to be part of another group on the Changing Chalk project. I absolutely loved every minute of it. I have become more outgoing, more willing to leave my house and always up for a new adventure, thank you to everyone involved. I'm forever grateful!*
- *I went from being depressed, feeling low, feeling lost to finding a new job and feeling positive about the future. Thank you so much for teaching me skills for life."*
- *"I would like to thank everyone that has been available for our group. Each of you have made every session relaxing, enjoyable and informative. I appreciate all the time you have given to this group and if I could help in any way in the future would be an honour to help to give to others what you have all given to me these past eight weeks. I feel much more in touch with myself and nature. So thank you all and growing new roots!"*
- *"The group has in general lifted my spirits. I'm so pleased I attended. It's just what I needed: a purpose as well as meeting others and giving something back."*

## Summary of evaluation findings

Participants evidenced strikingly high satisfaction with Green Wellbeing Alliance programmes, and provided glowing feedback describing how much they had enjoyed the programmes, how well run they were and the positive impact they had on participants' wellbeing.

SWEMWB scores indicate that participants' wellbeing improves noticeably over the period of their engagement with Green Wellbeing Alliance projects. Combined with other data collected via the pilot evaluation, it seems clear that it is this engagement itself that has led to this change.

All measures show this improvement, so the Green Wellbeing Alliance has evidence that it has a positive impact on participants:

- Feeling optimistic;
- Feeling useful;
- Feeling relaxed;
- Dealing with problems;
- Thinking clearly;
- Feeling close to other people;
- Being able to make up their minds;
- Feeling happy;
- Spending time outside;
- Increasing their skills/knowledge.

The effects are likely to be long-lasting because the evaluation indicated that participants tend to complete programmes with intentions, and concrete plans, to continue engaging with the outdoors and nature.

### **Recommendations for ongoing evaluation**

We recommend that the Green Wellbeing Alliance continues to use SWEMWBS with additional questions, aiming to strike a balance between individual projects administering questions specific to their project, and consistency across projects.

We recommend that scales are kept to 5 points, for consistency with the SWEMWBS which will help to make completing questionnaires straightforward for participants.

We recommend that data is collated in a single spreadsheet, with one row per respondent. This will reduce data processing (as there will be no need to copy data between spreadsheets) and will simplify the process of comparing "before" and "after" measurements. For example, running a T-test (which can be used for example to determine the likelihood that the difference between mean SWEMWBS scores taken at "before" and "after" points would have occurred by chance, i.e. whether or not the difference is "statistically significant") in Excel, requires all raw data to be in a single spreadsheet.

## Appendix One: Workshop Outcomes

# Green Wellbeing Evaluation Review: How can we evaluate consistently?

## Workshop Outcomes

### Introduction

On 1<sup>st</sup> December 2022, a workshop was held to begin the process of developing an evaluation approach that can be used by all Green Wellbeing Alliance members, to assess the impact of longer interventions (such as six to eight week courses). The aim is to enhance evaluation approaches already used by Alliance members, and produce data on the impact of the activities of the Green Wellbeing Alliance as a whole. This will support the Green Wellbeing Alliance to: provide feedback to funders, service users and others; inform service development; and support quality assurance, marketing and awareness-raising.

The workshop was facilitated by Rachel Papworth, Associate Consultant, Community Works, and attended by the following:

- Jess Crocker, Senior Manager, The Food Partnership;
- Rosie Lindford, Gardener and Project Co-ordinator, The Food Partnership;
- Caroline Whiteman, Gardener, The Food Partnership;
- Liz Ingram, Co-ordinator, Centre for Ecotherapy;
- Jo Wren, Director, The Grow Project;
- Alistair Duncan, Co-ordinator, The Grow Project and Where Two Rivers Meet;
- Ben Szobody, Project Development, One Church/Rock Farm.

The workshop considered:

- Evaluation tools and approaches currently used by Green Wellbeing Alliance partners;
- What an overarching evaluation approach should measure;
- Methodological issues and constraints;
- The potential to use a nationally and/or internationally recognised tool to meet at least some of the Alliance's joint evaluation aims.

## Green Wellbeing Alliance intended outcomes

The outcomes of the Green Wellbeing Alliance's activities, as stated in its funding bid, are as follows:

- 30 per cent of participants report increased physical activity levels;
- 50 per cent of participants report improved wellbeing;
- 40 per cent of participants report improved social networks.

Given the importance of reporting against these outcomes, particularly to funders, the workshop considered what might be measured to demonstrate achievement against them.

### Physical activity levels

Attendees explained that the majority of activities (although not all) involve physical activity, and considered whether asking participants to assess the impact of participating on their levels of physical activity might be unnecessary.

However, attendees discussed the following related impacts, which the evaluation approach might seek to assess:

- Amount of time spent out of doors;
- Amount of time spent outside the home;
- Increases in physical activity as a result of travelling to alliance activities;
- Whether participation has encouraged or enabled participants to engage in other physical activity.

Challenges in assessing change in physical activity include the fact that participants may not recognise all the physical activity in which they engage (e.g. gardening, housework, travelling to an activity).

### Wellbeing

Attendees suggested that, rather than measuring 'wellbeing' *per se*, it would be more powerful to measure factors which contribute to, or make up, wellbeing, which would include those discussed under 'Physical activity levels' above, and 'Social networks' below. Other factors the meeting considered were: agency (e.g. taking matters into one's own hands; or deciding for oneself to attend an activity); confidence; communication; teamwork; relationships; how one reacts to challenges/being out of one's comfort zone; increased skills and/or knowledge; physical health.

With regard to physical health, attendees felt that, as they routinely collect data on health conditions, it isn't necessary to collect further such data. Instead, data collected via the common evaluation tool could be cross-referenced with data on physical health.

### Social networks

Attendees discussed the following impacts, which the evaluation approach might seek to assess:

- Impacts identified by previous evaluation work, including participants reporting an increased:
  - Sense of belonging;
  - Sense of community;
  - Sense of meaning;
  - Sense of purpose;
- Participants structuring their weeks around attending Green Wellbeing Alliance activities;
- Participants learning about other activities, and social opportunities, as a (direct or indirect) result of attending Green Wellbeing Alliance activities;
- Participants developing the confidence to attend other activities, as a result of attending Green Wellbeing Alliance activities.

## **Approach**

### Methodological considerations

#### Scales

Attendees reported that respondents asked to rate their experience on a scale sometimes misunderstood the direction of the scale (e.g. scoring something 1, for 'Extremely bad', when they'd informally reported that they thought it was extremely good). Rachel suggested that this could be avoided by labelling the ends of the scale with words rather than numbers. She further explained that it's not essential to label each point on a scale, so long as the two extremes are labelled.

Rachel recommended that scales consist of an odd number of points. Presenting a scale with an even number of points forces each respondent to express a clear view, and prevents them from taking a neutral position. This can be uncomfortable for respondents, making them feel that they are unable to represent their view accurately. As a result, respondents may be dissatisfied, and/or may choose not to participate in the evaluation. This is a particularly important consideration when collecting data on sensitive subjects, and/or from vulnerable respondents.

A further consideration is whether to provide a 'Don't know' and/or 'Not applicable' option for each question, to avoid respondents choosing the midpoint of a scale to represent these situations.

#### 'Before and after' measurements

Attendees explained that some participants record lower wellbeing scores after participation than before participation, perhaps because participation enables them to more accurately assess, or gives them the confidence to more accurately report, their wellbeing.

Approaches that might mitigate such effects would include: taking the 'before' measure at the end (rather than the beginning) of the first session of participation; and/or taking a measurement at a mid-point, as well as at the beginning and the end, of participation.

The Grow Project makes respondents' 'before' responses available to them while they're completing their 'after' assessments. Rachel suggested that The Grow Project considers making 'before' responses available only afterwards (if at all), to avoid respondents being influenced by their previous scores.

#### Supporting participants to complete evaluation tools

Some participants need support to complete evaluation tools, while others can do so independently.

#### Online vs paper-based applications

Attendees stressed that the common evaluation tool should be available both in paper form and for completion on devices, such as phones and tablets. Paper-based tools require additional data processing and data entry, but can be more appropriate for outdoor activities, and are preferred by some participants.

Attendees discussed the potential for responses to be influenced by the setting in which, and medium through which, respondents use an evaluation tool. Responses given on paper, while sitting around a fire with others may be different from those given while at home, alone, in front of a computer.

#### Outcomes Star

Attendees felt that an Outcomes Star (or Outcomes Flower, as already used by the Grow project, or similar, such as an Outcomes Beanstalk) might be the most suitable type of evaluation tool. It's easy to use, straightforward for respondents to understand, and produces relatively simple yet powerful data.

Participants are asked to rate themselves and/or their experience on a set of scales radiating out from a central point. Ratings are collected before and after participation in the activity being evaluated, to enable change, or 'distance travelled' to be measured.

### **Collecting qualitative data**

It is anticipated that the common evaluation tools will collect exclusively quantitative data. Alliance members may wish to collect additional quantitative data and/or qualitative data alongside use of the tool.

An attendee shared information about the Otter app (<https://otter.ai>), which records speech, transcribes it and produces a content analysis summary, suggesting it as a way to automate analysis of qualitative interviews.

There is also the potential to use the common evaluation tool to facilitate a discussion with a participant that supports them to develop independence in managing aspects of their own wellbeing.

### **Warwick-Edinburgh Mental Wellbeing Scales (WEMWBS)**

Some Green Wellbeing Alliance members use the internationally-recognised 14-point Warwick-Edinburgh Mental Wellbeing scale. This was developed to enable the monitoring of mental wellbeing in general populations, and the evaluation of projects, programmes and policies which aim to improve mental wellbeing.

The original scale, with 14 items, is simple to score: the total score is obtained by summing the score for each of the 14 items. The scoring range for each item is from one to five, giving a total score from 14 to 70. (There is also a shorter, seven-item scale, which is more complex to score). When assessing change in mental wellbeing in individuals, a change of at least three points is considered significant.

The scales have been validated for use in a variety of locations, languages, cultural contexts and settings (including workplaces, schools, health services and community wellbeing projects).

They can be completed in paper or digital form.

Sample size guidance is available in the user guide, and a sample size of 30 people with data at two points in time is regarded as the minimum for a valid comparison.

Use of WEMWBS is protected by licence, issued by Warwick Medical School. Warwick Medical School provides free licenses to 'Non-Commercial Organisations', including registered charities, registered Community Interest Companies and registered social enterprises. Thus, to use WEMWBS scales, each member of the Green Wellbeing Alliance would need to register for a licence, by completing an online form. Registered users are sent a guide, to support them in using the scale and interpreting the results.

The workshop considered the extent to which WEMWBS scales address the Alliance's evaluation priorities, and concluded that there was a great deal of overlap.

### Priorities for measurement

The workshop concluded by identifying all elements of physical activity, wellbeing and social networks that had been discussed in the workshop, looking at how they related to one another, and considering to what extent they were addressed by the Warwick Edinburgh Mental Wellbeing scales. The outcomes of this exercise are summarised in the table below.

<b>Element of physical activity, wellbeing and/or social networks</b>	<b>Number of workshop participants identifying this element as a measurement priority</b>	<b>Related WEBWBS measure</b>
Sense of belonging Community More social networks Teamwork Relationships (including outside the activity)	7	Feeling loved Feeling interested in other people Feeling close to other people
Time spent outside	6	
Sense of purpose	6	Feeling useful
Response to challenge	6	Dealing with problems well
Happiness Joy	5	Feeling cheerful
Sense of hope	4	Feeling optimistic about the future
Agency	4	Able to make up my own mind about things
Confidence	1	Feeling confident
Skills and knowledge	1	
Physical activity	0	
Sense of meaning	0	
		Had energy to spare
		Feeling relaxed
	1	Feeling good about myself
		Thinking clearly
		Interested in new things

## Next steps

Given the extent of overlap between workshop attendees' priorities for evaluation, and the fact that some members are already using the WEBWBS 14-point scale, we recommend that the Green Wellbeing Alliance uses the WEBWBS 14-point scale, alongside additional questions, which would be designed to measure change in the following:

- A sense of belonging
- Time spent outside
- Skills and knowledge.

Warwick Medical School confirms that adding questions to WEBWBS does not reduce the validity of the tool.

We are recommending the 14-point, rather than 7-point scale because it gives a fuller picture of mental wellbeing (including more items relating to 'feeling' than the 7-point scale, which concentrates mostly on 'functioning' items), and because it is simpler to score (scores from the 7-point scale have to be transformed, using a table provided by Warwick Medical School).

However, the Green Wellbeing Alliance may feel that the 7-point scale would be easier for participants to complete, by virtue of its shorter length.

A comparison of the properties of the two scales can be found here: <https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/about/wemwbsvsswemwbs/>

Despite the user-friendliness of visual tools, such as the Outcomes Star, we recommend that the additional questions follow the same format as the WEBWBS scale. This will avoid participants being asked to complete two separate tools, in different formats.