

Social Return on Investment of the Actif Woods Wales Programme

Woodland activities for personal wellbeing



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“I took a walk in the woods and came out taller than the trees.”

Henry David Thoreau

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1. Acknowledgements

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2. Executive Summary

Background: Actif Woods Wales (AWW) provides woodland activity programmes in partnership with health and social care organisations who refer adults who are experiencing physical, mental or social challenges. The aim is to extend the physical and mental health benefits of contact with nature to a wide group of people including those actively using mental health services, older people in sheltered housing, economically inactive people with disability or long-term illness, and people recovering from domestic violence or substance misuse.

Aim: The purpose of this study is to explore the social value generated from AWW programmes as measured by the increase in personal wellbeing experienced by participants.

Methods: This study was conducted between May 2017 and January 2019. Participants from six different sites participated in 6-week to 12-week woodland activity programmes which consisted of a weekly two- to 3-hour outdoor session. Participants attended either a 'multi-activity' programme or a 'mindfulness in the woods' programme. Quantitative data was collected from pre- and post-questionnaires. Qualitative data was collected from focus groups. Outcomes included improvements in mental wellbeing, confidence, social trust and physical activity. Wellbeing valuation was applied to quantify and value outcomes. Social value ratios were generated from two separate value sets, one from the Social Value Bank (SVB) and the other from the Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS). Both the SVB and SWEMWBS value sets are derived from wellbeing valuation, a consistent and robust method recommended in HM Treasury's Green Book (2018) for measuring social cost-benefit analysis.

Results: 120 participants completed baseline questionnaires and 74 participants (62%) completed follow-up questionnaires. 82% of participants attended 'multi-activity' programmes and 18% participated in 'mindfulness in the woods' programmes. SROI ratios were calculated using the SWEMWBS value set and using the SVB value set for a base case and a conservative case scenario. The results showed that for every £1 invested in the woodland activity programmes, £2.07 to £4.85 of social value was generated for participants.

Discussion: This was the first study to estimate the social value to people who participated in a 6-week to 12-week woodland activity programme. Although the reliability of the results may have been limited due to the lack of a control group, wellbeing valuation considers this by subtracting a 'deadweight' percentage of 27% from the total social value. Although AWW programmes provided good social value for money, the results indicated higher social value ratios for 6-week mindfulness and 8-week multi-activity programmes. As a result, Actif Woods now offers more 6- to 8-week programmes and fewer 12-week multi-activity programmes.

Conclusion: The results showed that AWW programmes generated positive social value to participants. Quantitative and qualitative data from pre- and post-questionnaires indicated that many participants improved in mental wellbeing, confidence, social trust, and levels of physical activity. Wellbeing valuation from two different value sets generated positive social value ratios.

3. Introduction

Established in 2010 by the Small Woods Association (Coed Lleol), AWW provides woodland activity programmes for adults and families. The purpose of AWW is to extend the physical and mental health benefits of contact with nature to a wider group of people, including those actively using mental health services, older people in sheltered housing, economically inactive people with disability or long-term illness, and people recovering from domestic violence or addictions.

AWW's vision is to improve health and wellbeing by embedding woodland activity programmes within the National Health Service (NHS) through social prescribing. Social prescribing, also known as community referral, is a means of enabling health professionals to refer people to a range of local, non-clinical services. By encouraging healthy behaviour through increased physical activity and social connection, AWW aligns with the Wellbeing of Future Generations Act (Wales) 2015 and its objective of achieving 'A Healthier Wales'.

4. Background

There is a growing body of scientific evidence to indicate that engaging with nature improves personal wellbeing (Shanahan, 2019, Natural England, 2016). Research shows that increased time spent in nature can enhance physical health and mental health (Department of Health, 2014). In the UK, the Government's '25 Year Environment Plan' seeks to improve the nation's health and wellbeing by connecting more people with the natural environment (HM Government, 2018).

In Wales, the Government is committed to helping people achieve healthy and active lifestyles (Welsh Assembly Government, 2014). Promoting wellbeing is a key component in the Social Services and Wellbeing (Wales) Act 2014. Legal powers within the Act directly strengthen the duties on public bodies to work together to identify need, promote well-being and develop integrated services. The Wellbeing of Future Generations (Wales) Act 2015 also requires public bodies to take a more joined-up approach in maximising the physical and mental health of people in Wales.

5. Aim

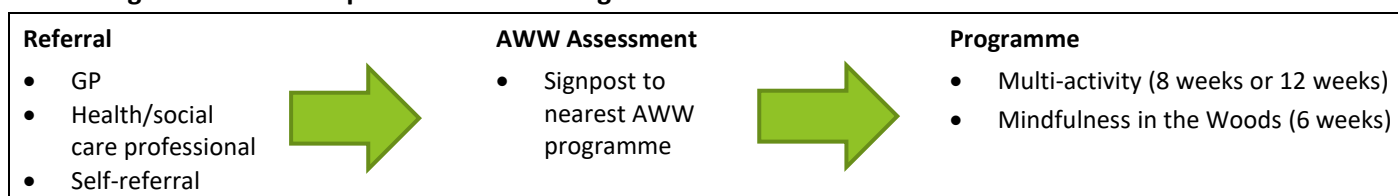
The aim of this report is to explore the social value of improved personal wellbeing for AWW participants. In this study, personal wellbeing refers to the subjective assessment of how people feel about their own lives. It is likely that any reported improvement in personal wellbeing will be closely linked to the physical and mental health improvements that participants experience from their AWW programme (Linton, Dieppe and Medina-Lara, 2016).

6. AWW Woodland Activity Programme

Previously funded through Active Inclusion and currently funded through Healthy and Active (<https://gov.wales/healthy-and-active-fund-action>) and Natural Resources Wales (<https://naturalresources.wales/?lang=en>), AWW provides free woodland activity programmes which include bushcraft, campfire cooking, woodland walks, conservation, foraging, woodland gym, mindfulness and more. Programmes are frequently run in partnership with health or social care organisations who make referrals to the programme as part of social prescribing. Referring support workers often attend with participants.

Although programmes are open to people from all postcodes, those in lower income areas who may be experiencing a physical, mental or social challenge are prioritised. Upon referral, participants are referred to one of ten AWW woodland activity locations in Wales, generally for a 'multi-activity programme' (8 weeks or 12 weeks) or 'mindfulness in the woods' (6 weeks) (Figure 6.1):

Figure 6.1: Referral process to AWW Programmes



- Multi-activity (8 weeks or 12 weeks): The multi-activity programme consists of a weekly 2- to 3-hour session, split between a physical activity and a nature or craft-based activity. Types of activities include fire lighting, making a shelter, willow weaving, mindfulness, outdoor cooking, woodland walking, woodland gym exercises, tracking and bushcraft.

- Mindfulness (6 weeks): The mindfulness in the woods course focuses on teaching mindfulness skills. The six-week programme is modelled on the Mindfulness-Based Stress Reduction Programme and is delivered by a trained mindfulness instructor (Williams and Penman, 2011).

Actif Woods Wales
Coed Actif Cymru

Getting healthy the woodland way
Ffordd y goedwig o gadw'n iach



7. Woodland Trust Research Study

Previous in-house evaluations of AWW programmes have shown promising results with participants reporting improved mental wellbeing and physical activity (Sultana, 2016). A small qualitative study of a dozen participants identified social interaction as a key element of AWW. Between 2017 and 2019, the Woodland Trust sponsored a larger study to explore the impact of AWW on personal wellbeing. This study was made possible by a Knowledge Economy Skills Scholarship (KESS) grant supported by European Social Funds through the Welsh Government. The study received ethics approval from the NHS and Bangor University, and it was conducted by Dr Heli Gittins, Dr Sophie Wynne-Jones, Dr Norman Dandy and Professor Val Morrison.

During the study, 120 participants from six different woodland sites across Wales completed a baseline questionnaire at the start of their programme and 74 participants (62%) completed a follow-up questionnaire at the end of their programme. 82% (61/74) of participants who completed both baseline and follow-up questionnaires were from 'multi-activity' programmes and 18% (13/74) were from 'mindfulness' programmes.

Some participants in this study were referred from social care and health care organisations. Others were recruited from specific groups such as older people in sheltered housing or patients recovering from brain injuries, addictions, domestic violence or homelessness. Mental wellbeing was the primary outcome measured. This was assessed using the Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS) (Stewart-Brown et al., 2009). Secondary outcomes included improvements in general health, levels of physical activity, social trust, self-esteem and self-efficacy. In addition to completing questionnaires, participants were also invited to attend focus groups after completing their AWW programme. The main benefits emerging from questionnaires and focus groups were improved mental wellbeing, increased confidence, more social connection, and increased physical activity. These are described elsewhere in more detail (Gittins et al., 2020).

8. Overview of Social Return on Investment (SROI)

Commissioned by Coed Lleol with financial support from Natural Resources Wales, the SROI measured and monetised significant participant outcomes. Both quantitative and qualitative data was used to measure the total social value of participant outcomes, which was then compared with the total costs of delivering the programmes to determine the social value ratio.

The main stages of SROI analysis include six steps: identifying the main stakeholders, developing a theory of change, calculating inputs (i.e., costs), evidencing outcomes, valuing outcomes, and estimating the SROI (Cabinet Office, 2012) (Figure 8.1).

Figure 8.1: Stages of SROI analysis

1. Identifying Stakeholders
2. Developing a Theory of Change
3. Calculating Inputs
4. Evidencing and Valuing Outcomes
5. Establishing Impact
6. Estimating the SROI Ratio

SROI, social cost benefit analysis and wellbeing valuation

SROI is a pragmatic form of social cost benefit analysis (Social CBA). Social CBA is recommended in the HM Treasury Green Book for assessing the impact of interventions on wellbeing (New Economics Foundation, 2012; HM Treasury, 2018). Social cost benefit analysis uses both quantitative and qualitative methods to value relevant costs and benefits.

SROI methodology is outlined in the Cabinet Office Guide to Social Return on Investment (Cabinet Office, 2012). SROI considers which outcomes are relevant and significant to stakeholders and then assigns monetary values to important outcomes which may not have market prices. Examples of relevant and significant outcomes in this Woodland Trust study were increased levels of mental wellbeing, confidence, social trust and physical activity. Using wellbeing valuation, the social value of relevant and significant outcomes was compared with total costs to estimate the SROI ratio.

$$\text{SROI ratio} = \frac{\text{Social value of AWW participant outcomes}}{\text{Cost of providing AWW programmes}}$$

Wellbeing valuation offers a consistent and robust method for estimating the monetary value of outcomes that do not have market values. Wellbeing valuation can be applied using two value sets: Social Value Bank (SVB) and the SWEMWBS value set for measuring mental wellbeing.

In this study, SVB was used to monetise the outcomes of increased confidence, social trust and physical activity (Sections 14 and 15). The SWEMWBS value set was used to monetise mental wellbeing (Section 16). Because the values in the SVB incorporate mental wellbeing, the two value sets (SVB and SWEMWBS) are treated separately rather than as two value sets that can be combined (Trotter et al., 2017) (Table 8.1).

Table 8.1: SVB and SWEMWBS value sets

Outcome	Outcome measure	Value Set
Mental wellbeing	SWEMWBS	SWEMWBS
Confidence	General Self-Efficacy Scale	SVB
Social trust	Social Trust Question	SVB
Physical activity	7 Day Physical Activity Recall	SVB

9. Identifying Stakeholders

AWW staff and Bangor University researchers determined that ‘participants who directly experienced the AWW programme’ were the primary stakeholder group in this study. As a result, participant outcome data was collected from this group. Due to the scope of this study, data was not collected from other possible stakeholders who may have also benefited from AWW such as family members of participants, the NHS or social care services (Table 9.1).

Table 9.1: Inclusion of stakeholder groups in analysis

Stakeholders	Included	Reason
People who participated in AWW	Yes	Participants were the main beneficiaries of the programme.
Family members of participants	No	Family members may have experienced indirect benefits from the programme when their loved one experienced a positive health change. However, questionnaires and interviews were not collected from family members.
Referral agencies to the programme	No	Although health and social care organisations, including the NHS, referred people to AWW, data was not collected on how the programme impacted the health and social care use of participants.
Mentors/leaders/instructors who deliver the programme	No	Woodland activity mentors/leaders/instructors were employed to deliver the programme, and any personal benefits were incidental.

Inclusion criteria

Eligibility in this study included adults (over 18 years old) who met the following criteria:

- Referred to a relevant AWW programme lasting from 6 to 12 weeks.
- Experiencing a physical, mental or social issue that would benefit from this intervention.
- Physically well enough to participate in outdoor sessions.
- Mental capacity to be able to reflect on their own wellbeing.
- Able to speak Welsh or English to understand questionnaire and focus group questions.

Data collection

After referral to the AWW programme, participants received a participant information sheet (Appendix 1) and a baseline questionnaire (Appendix 2). The baseline questionnaire captured demographic information, reason for referral, current health state, levels of physical activity, and information regarding mental wellbeing, social trust, self-efficacy and self-esteem. Of the 120 participants who completed baseline questionnaires, the most common reasons for referral were mental health conditions such as depression and anxiety. The most frequent physical health conditions cited by participants were arthritis and diabetes.

Participants also completed a follow-up questionnaire, which was similar with the baseline questionnaire except for additional questions about their experience of the programme. After the programme, 74 participants (62%) completed follow-up questionnaires, which indicated:

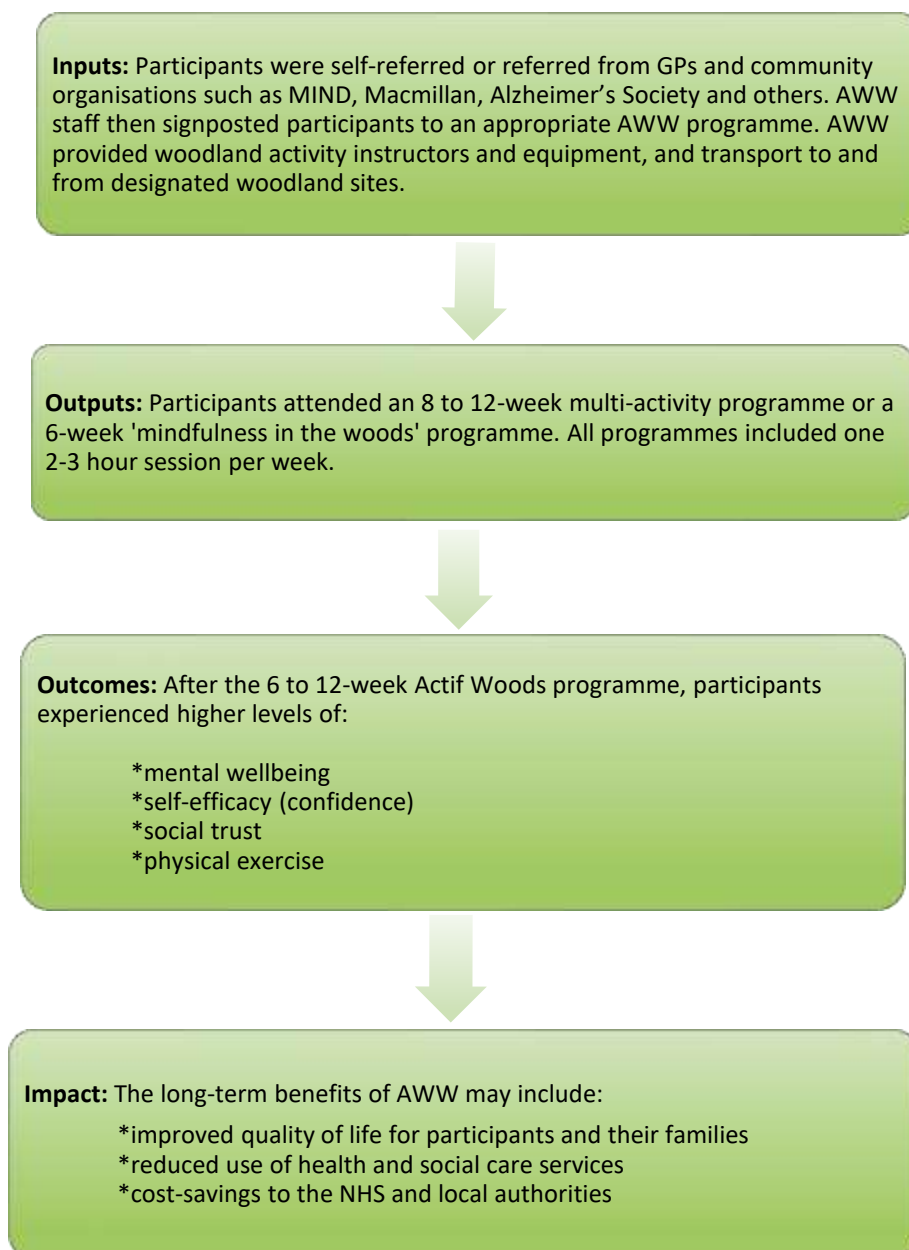
- 98% were white British
- 58% were women
- 79% were aged 25 to 64
- 82% participated in a multi-activity programme
- 18% participated in a mindfulness in the woods programme

In addition to completing questionnaires, 20 participants attended one of five face-to-face focus groups which were approximately 30 minutes in length. Facilitated by a Bangor University researcher, the focus groups took place in the woods without the presence of AWW instructors and support staff. The purpose of the focus groups was to further explore participants' experience of the programme. Informed consent was obtained from participants prior to being interviewed. Focus groups were audio-recorded and transcribed.

10. Developing a Theory of Change

A Theory of Change model was created to identify the expected changes experienced by participants. Often used in programme development and evaluation, Theory of Change models illustrate the links between the inputs, outputs, outcomes, and impact (Figure 10.1).

Figure 10.1: Theory of Change Model



11. Calculating Inputs

Total costs for AWW programmes included administration costs and session costs (Table 11.1). Administration costs included time for AWW staff to monitor and evaluate existing programmes as well as to coordinate and develop referrals and partnerships. Session costs included minimum and maximum cost scenarios for two leaders, transport and materials.

The total costs per programme ranged from £1,658 to £2,588 for a 6-week mindfulness programme, from £2,210 to £3,450 for an 8-week multi-activity programme, and from £3,315 to £5,175 for a 12-week multi-activity programme (Table 11.1)

Table 11.1: Total costs per Actif Woods programme

Cost category	6-week mindfulness	8-week multi-activity	12-week multi-activity
Admin costs <ul style="list-style-type: none"> 1 day per week - project officer 1/4 day per week - manager 	£788 (£525 per month x 1.5 months)	£1,050 (£525 per month x 2 months)	£1,575 (£525 per month for 3 months)
Session costs (Minimum cost scenario)	£870 (£145 per week for 2 leaders, transport, materials)	£1,160 (£145 per week for 2 leaders, transport, materials)	£1,740 (£145 per week for 2 leaders, transport, materials)
Session costs (Maximum cost scenario)	£1,800 (£300 per week for 2 leaders, transport, materials)	£2,400 (£300 per week for 2 leaders, transport, materials)	£3,600 (£300 per week for 2 leaders, transport, materials)
Total cost per programme (Minimum cost scenario)	£1,658	£2,210	£3,315
Total cost per programme (Maximum cost scenario)	£2,588	£3,450	£5,175

In this study, 74 participants from 11 different AWW programmes completed baseline and end-programme questionnaires. Total costs per participant ranged from £255 to £398 for the 6-week mindfulness programme, from £260 to £406 for the 8-week multi-activity programme and from £526 to £821 for the 12-week multi-activity programme. The weighted average cost per participant per programme was £428 for the minimum cost scenario and £669 for the maximum cost scenario (Table 11.2).

Table 11.2: Total costs per Actif Woods participant

Participant categories	6-week mindfulness	8-week multi-activity	12-week multi-activity	Totals
Participants completing baseline & end-programme questionnaire	13	17	44	74
Number of programmes offered	2	2	7	11
Average weighted number of participants per programme	6.5	8.5	6.3	6.7
Average weighted cost per participant (minimum cost scenario)	£255	£260	£526	£428
Average weighted cost per participant (maximum cost scenario)	£398	£406	£821	£669

12. Evidencing Outcomes

Quantitative and qualitative data was used to evidence participant outcomes (Table 12.1).

Table 12.1: Method of data collection

Stakeholder	Method of data collection	Source of data collected
Participants	Baseline questionnaires completed	120 participants
	Follow-up questionnaires completed	74 participants
	Focus group participants	20 participants

Baseline and follow-up questionnaires included validated scales and questions to assess mental wellbeing, self-efficacy, social trust and physical activity (Table 12.2).

Table 12.2: Outcome measures

Outputs	Outcome	Outcome measure
Attendance at AWW sessions: (one 3- to 4-hour session per week for 6 to 12 weeks)	Mental wellbeing	Short Warwick-Edinburgh Mental Wellbeing Scale
	Self-efficacy / confidence	General Self-Efficacy Scale
	Social trust	Social Trust Question
	Physical activity	7-Day Physical Activity Recall Question

1. Mental wellbeing: Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS)

SWEMWBS was developed to enable the monitoring of mental wellbeing in the general population. SWEMWBS is a list of seven positively worded statements with five response categories to measure different aspects of positive mental health (Stewart-Brown et al., 2009). Overall scores can range from 7 to 35.

2. Confidence: General Self-Efficacy Scale (GSES)

The GSES is a 10-item self-report measure of self-efficacy. It assesses the strength of an individual's belief in their ability to respond to novel or difficult situations and to deal with any associated obstacles or setbacks (Schwarzer and Jerusalem, 1995). Overall scores can range from 10 to 40.

3. Social trust: NEF Social Trust Question

Social trust refers to 'being able to rely on others behaving in a particular way' (Verducci and Schroer, 2010). The question below is widely used to measure social trust (New Economics Foundation, 2012): "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please give a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted". Overall scores can range from 0 to 10.

4. Physical activity: 7-Day Physical Activity Recall Question

Participants were asked: "On how many days in the past 7 days have you done at least 30 minutes of physical activity? (Only count physical activity that increased your heart and breathing rate, or that made you sweat a bit)." Overall scores can range from 0 to 7.

13. Quantity of Outcomes

Baseline and follow-up questionnaire data was compared for each participant to determine the number who improved, stayed the same, or worsened for each outcome. Due to missing data, the total number of completed questionnaires for each outcome varied between 69 and 72.

Outcome 1: Mental Wellbeing

Quantitative findings at follow-up:

- 68% (47/69) reported improved mental wellbeing (increase of 1 point or more on SWEMWBS)
- 23% (16/69) indicated decreased mental wellbeing (decrease of 1 point or more on SWEMWBS)
- 9% (6/69) reported the same amount of mental wellbeing (no change on SWEMWBS)

Qualitative data showed that many participants experienced improved mental wellbeing:

- *'You feel like you are on holiday and it makes you feel good'*
- *'Being out in the natural environment, amongst the trees, just gives you that sense of belonging, bringing yourself, putting yourself back together'*
- *'I'm in recovery, and it's done my wellbeing loads. I'm doing very well and this is a wonderful project. It's very good for my wellbeing'*
- *'You can be yourself in the woods'*
- *'It's just open and beautiful and the air is different. You just look around and you don't see any buildings, and it's just beauty'*
- *'Getting out with nature and especially in the woods makes a big difference in my mood and wellbeing'*

Outcome 2: Confidence

Quantitative findings at follow-up:

- 55% (38/69) reported more confidence (increase of 1 point or more on GSES)
- 29% (20/69) indicated less confidence (decrease of 1 point or more on GSES)
- 16% (11/69) reported the same amount of confidence (no change on GSES)

Qualitative data showed that the programme generated more confidence for many participants:

- *'It's helped me with confidence as well'*
- *'It's helped me a lot. I never used to go on the bus or anything on my own, but I've started being able to do it, so it has helped me in that sense'*
- *'I was very low in confidence and self-esteem, and thinking 'I can't do this' or 'I can't do that', but coming to Actif Woods has really helped me'*
- *'The course has given me the confidence to get out and meet other people and work alongside others in a team in an outdoor environment'*
- *'I was so anxious and tense before beginning the course. I was socially isolated - I have easily made friends and felt confident'*
- *'My son has noticed a change in me - a real positive change in me. I'm much more confident. I'm my own person'*

Outcome 3: Social trust

Quantitative findings at follow-up:

- 51% (36/71) reported more social trust (increase of 1 point or more on Social Trust Question)
- 25% (18/71) indicated less social trust (decrease of 1 point or more on Social Trust Question)
- 24% (17/71) reported the same amount of social trust (no change on Social Trust Question)

Qualitative data showed that many participants experienced positive social connection resulting in more social trust.

- *'I've made things here and I've given them as gifts to people. I've posted pictures on Facebook. It's led to my engaging with other people in a slightly new and different way'*
- *'You don't feel like you're on your own with your problems, you know other people have got problems similar to you'*
- *'I think being outside in the fresh air and doing stuff helps the anxiety and depression. I feel like I've got out of a rut as well. I feel like I'm not in my shell as much. I've come out of myself 'A place to relax, learn and share with people who understand'*
- *'It has helped me to get back to nature to help me calm myself. I feel needed as a person and not treated like a worn-out pair of shoes to be discarded and thrown away'*
- *'I felt relaxed and less stressed. It was like having a family in the woods. It was like going back in time when people were nice, calm and happy'*

Outcome 4: Physical activity

Quantitative findings at follow-up:

- 50% (36/72) reported more physical activity (increase of ≥ 1 day on Physical Activity question)
- 17% (12/72) indicated less physical activity (decrease of ≥ 1 day on Physical Activity question)
- 33% (24/72) reported same amount of physical activity (no change on Physical Activity question)

Qualitative data showed that the programme motivated many participants to engage in physical activity:

- *'It maintains my health and fitness'*
- *'I really enjoyed the walks and all the fresh air and woods'*
- *'It got me off my backside. I got to meet new people and felt rejuvenated'*
- *'It gets me outdoors and more active'*
- *'I have been skipping in garden for about 30 mins a day'*
- *'It's threefold. There's the physical, mental and spiritual, but it hits all three. You're out physically doing something, and then you're learning too, and then the spiritual side is being out in the woods. I've found for my recovery that it's in my best interest to do something physical, something mental, and something spiritual every day to maintain my abstinence. Actif Woods can do that on all three levels'*



Engaging in trail maintenance



Walking in nature

14. Wellbeing Valuation using SVB

SVB is a bank of approximately 120 methodologically consistent and robust social values. These values provide a basic assessment of social value which are often used in SROI and Social CBA. Examples of SVB monetary values for some 'health' outcomes are illustrated in Table 14.1.

Table 14.1: SVB monetary values for health outcomes

Health

OUTCOME	AVERAGE VALUE
High confidence (adult)	£13,080
Relief from depression/anxiety (adult)	£36,766
Good overall health	£20,141
Relief from drug/alcohol problems	£26,124
Smoking cessation	£4,010
Feel in control of life	£12,470
Can rely on family	£6,784

In this study, the SVB was used to monetise the outcomes for changes in confidence, social trust and physical activity (Table 14.2).

- Confidence:** The SVB value for improved confidence is estimated at £13,080 per person per year, which is the value assigned to 'high confidence'. When the number of participants who decreased in confidence (n=20) is subtracted from the number of participants who improved (n=38), the net increase is 18 participants. When 18 is multiplied by £13,080, the total social value for confidence is £235,440 per year.
- Social trust:** The SVB value for improved social trust is estimated at £3,753 per person per year, which is the value assigned to 'feeling a sense of belonging to neighbourhood'. When the number of participants who decreased in social trust (n=18) is subtracted from the number of participants who improved (n=36), the net increase is 18 participants. When 18 is multiplied by £3,753, the total social value for social trust is £67,554 per year.
- Physical activity:** The SVB value of increased physical activity is estimated at £3,537 per person per year, which was the value assigned to 'frequent mild exercise'. When the number of participants who decreased in physical activity (n=12) is subtracted from the number of participants who increased (n=36), the net increase is 24 participants. When 24 is multiplied by £3,537, the total social value for physical activity is £84,888 per year.

Total Social Value from SVB

Using monetised values from the SVB, the total social value for participants experiencing more confidence, social trust and physical activity was £387,882 and the total social value per participant was £5,542 (Table 14.2).

Table 14.2 Quantity of outcomes and total social value

Outcomes	Indicators	Net Quantity	Financial value	Total social value for all participants	Social value per participant
Confidence	General self-efficacy scale at baseline and follow-up	18 / 69 reported more confidence at follow-up	£13,080 per year for feeling high confidence	£235,440	£3,412 (n=69)
Social trust	Social trust question at baseline and follow up	18 / 71 reported more social trust at follow-up	£3,753 per year for feeling a sense of belonging to neighbourhood	£67,554	£951 (n=71)
Physical activity	Physical activity question at baseline and follow-up	24 / 72 reported more physical activity at follow-up	£3,537 per year for frequent mild exercise	£84,888	£1,179 (n=72)
				£387,882	£5,542

Deadweight, Attribution and Displacement

To avoid overclaiming, SROI methodology requires that deadweight, attribution and displacement are considered (Table 14.3).

Deadweight

Deadweight reflects the possibility that a proportion of the outcomes could have happened anyway without the AWW programme. For valuing health outcomes, the Housing and Communities Agency recommends subtracting a standard deadweight percentage of 27% from the total social value (Dancer, 2014; Fujiwara et al., 2017).

Attribution

Attribution acknowledges that a proportion of the outcomes could be attributable to factors other than the programme. In this study, the baseline questionnaire asked participants: *“What, if any, other regular and lead activities do you take part in (e.g., gardening programme, walking group)?”*

Approximately 46% of participants (33 of 72) reported engaging in other activities that could have contributed to an increase in outcomes at end-of-course. Examples of other activities included walking, gardening, volunteering, participating in social groups, and physical activity such as swimming, running, cycling, pilates, and going to the gym. Therefore, an attribution percentage of 46% was subtracted from the total social value.

Displacement

Displacement considers whether participants had to give up any other activities (due to the AWW programme) that could have contributed to their wellbeing. Because the AWW programme was not compulsory, participants were not required to give up any other activities that may have contributed to their wellbeing. Most participants enjoyed the programme and freely chose to attend.

When asked *“on a scale of 0 to 10, how important has this Actif Woods Wales course been for you,”* the average response was 8.3 from the end-of-course questionnaires. However, it’s possible that a few participants may have felt obliged to attend. One participant, for example, commented *“I don’t know about Actif Woods to be honest”*. Therefore, a minimal displacement percentage of 5% was subtracted from the total social value.

Total Social Value from SVB (Base case)

When deadweight, attribution and displacement were considered for the base case, the total social value for participants experiencing more confidence, social trust and physical activity was £145,258 and the total social value per participant was £2,076 (Table 14.3).

Table 14.3: Deadweight, Attribution and Displacement

Outcomes	Total social value	Deadweight	Attribution	Displacement	Total social value	Total social value per participant
Confidence	£235,440	27% (x 0.73)	46% (x 0.54)	5% (x 0.95)	£88,170	£1,278 (n=69)
Social trust	£67,554	27% (x 0.73)	46% (x 0.54)	5% (x 0.95)	£25,298	£356 (n=71)
Physical activity	£84,888	27% (x 0.73)	46% (x 0.54)	5% (x 0.95)	£31,790	£442 (n=72)
Social impact	£387,882				£145,258	£2,076

When the total social value per participant was compared with the total cost per participant, the social value ratios were £4.85: £1 for the minimum cost scenario and £3.10: £1 for the maximum cost scenario (Table 14.4)

Table 14.4: Calculating Social Value Ratio – Base case

Total social value per participant	£2,076
Total cost per participant (minimum cost scenario)	£428
Total cost per participant (maximum cost scenario)	£669
Social value ratio (minimum cost scenario)	£4.85 : £1
Social value ratio (maximum cost scenario)	£3.10 : £1

15. Wellbeing Valuation using SVB - Sensitivity analysis

Sensitivity analysis makes it possible to provide a range of SROI ratios to reflect a variety of possible real-life scenarios (Cabinet Office, 2012). Sensitivity analysis was performed to generate a base case and conservative case for the three significant outcomes (i.e., confidence, social trust, and physical activity) valued through the SVB (Table 15.1).

The base case counted all participants who improved and worsened in a particular outcome (i.e., confidence, social trust and physical activity). The conservative case counted only those participants who improved or worsened by three or more points on the self-efficacy scale (confidence), two or more points on the social trust question, and two or more points on the 7-day physical activity recall question (Table 15.1).

Table 15.1: Base case and conservative case

Outcome	Base case	Conservative case
Confidence (net increase)	Measured by a change of 1 point or more on the self-efficacy scale (n=18)	More confidence measured by a change of 3 points or more on the self-efficacy scale (n=13)
Social trust (net increase)	Measured by a change of 1 point or more on the social trust question (n=18)	More social trust measured by a change of 2 points or more on the social trust question (n=13)
Physical activity (net increase)	Measured by a change of 1 point or more on the physical activity question (n=24)	More physical activity measured by a change of 2 points or more on the physical activity question (n=11)

Total Social Value from SVB (Conservative case)

When deadweight, attribution and displacement were considered for the conservative case, the total social value for participants experiencing more confidence, social trust and physical activity was £96,519 and the total social value per participant was £1,382 (Table 15.2).

Table 15.2: Conservative case

Outcomes	Net Quantity	Financial value (SVB)	Social value	Deadweight	Attribution	Displacement	Total social value (all participants)	Total social value per participant
Confidence	13 / 69	£13,080 per year	£170,040	27% (x 0.73)	46% (x 0.54)	5% (x 0.95)	£63,678	£923 (n=69)
Social trust	13 / 71	£3,753 per year	£48,789	27% (x 0.73)	46% (x 0.54)	5% (x 0.95)	£18,271	£257 (n=71)
Physical activity	11 / 72	£3,537 per year	£38,907	27% (x 0.73)	46% (x 0.54)	5% (x 0.95)	£14,570	£202 (n=72)
Social Impact			£257,736				£96,519	£1,382

When the total social value per participant was compared with the total cost per participant for the conservative case, the social value ratios were £3.23: £1 for the minimum cost scenario and £2.07: £1 for the maximum cost scenario (Table 15.3)

Table 15.3: Calculating Social Value Ratio – Conservative case

Total social value per participant	£1,382
Total cost per participant (minimum cost scenario)	£428
Total cost per participant (maximum cost scenario)	£669
Social value ratio (minimum cost scenario)	£3.23 : £1
Social value ratio (maximum cost scenario)	£2.07 : £1

16. Wellbeing Valuation using SWEMWBS

To value mental wellbeing, the SWEMWBS value set was applied to monetise changes between baseline and end-of-course SWEMWBS scores for each participant (Trotter et al., 2017) (Figure 16.1).

Figure 16.1: Monetary values for overall SWEMWBS scores

The Short WEMWBS (SWEMWBS)

Statements	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been able to make up my own mind about things	1	2	3	4	5

Respondents select a response for each of the statements. The scores for each statement (between 1-5) are added together to produce the overall score for each respondent.

The new SWEMWBS values and how to apply them

As with the existing Social Value Bank, the wellbeing valuation method was used to value movements on the SWEMWBS scale. These values represent the additional money, the average individual would need to improve their wellbeing, which is the same amount as the improvement in their SWEMWBS score.

Category	Overall SWEMWBS score	Full model value
1	7-14	£0
2	15-16	£9,639
3	17-18	£12,255
4	19-20	£17,561
5	21-22	£21,049
6	23-24	£22,944
7	25-26	£24,225
8	27-28	£24,877
9	29-30	£25,480
10	31-32	£25,856
11	33-34	£26,175
12	35	£26,793

Applying SWEMWBS value set

Below are the steps for calculating the social value using SWEMWBS (Trotter et al., 2017):

1. Participants completed SWEMWBS questionnaires at baseline and end-of-course.
2. Scores for all seven SWEMWBS questions were summed at baseline and end-of-course.
3. A total score (ranging from 7-35) was recorded for each participant at both time points.
4. The appropriate SWEMWBS monetary value was assigned to each total score.
5. The baseline value was subtracted from the end-of-course value for each participant.
6. 27% was subtracted as 'deadweight' to calculate the total social value for each participant.

Using these six steps, the total social value was £139,829 for improvement in mental wellbeing for the 70 participants who completed the SWEMWBS scale at baseline and end-of-course (Table 16.1).

Table 16.1: Social value for mental wellbeing using the SWEMWBS value set

ID	Baseline (T1)	£ Value	Follow-up (T2)	£ Value	Difference (T2 – T1)	Social Value after Deadweight
1	17	£12,255	27	£24,877	£12,622	£9,214
2	27	24877	28	24877	0	0
3	17	12255	25	24225	11970	8738
4	23	22944	28	24877	1933	1411
5	26	24225	28	24877	652	476
6	30	25480	26	24225	-1255	-916
7	27	24877	25	24225	-652	-476
8	23	22944	21	21049	-1895	-1383
9	21	21049	30	25480	4431	3235
10	35	26793	31	25856	-937	-684
11	18	12255	24	22944	10689	7803
12	16	9639	19	17561	7922	5783
13	18	12255	21	21049	8794	6420
14	27	24877	26	24225	-652	-476
15	25	24225	35	26793	2568	1875
16	18	12255	23	22944	10689	7803
17	18	12255	26	24225	11970	8738
18	21	21049	26	24225	3176	2318
19	22	21049	25	24225	3176	2318
20	15	9639	25	24225	14586	10648
21	23	22944	26	24225	1281	935
22	25	24225	28	24877	652	476
23	14	0	21	21049	21049	15366
24	28	24877	28	24877	0	0
25	20	17561	20	17561	0	0
26	23	22944	29	25480	2536	1851
27	19	17561	23	22944	5383	3930
28	26	24225	28	24877	652	476
29	18	12255	24	22944	10689	7803
30	20	17561	22	21049	3488	2546
31	25	24225	22	21049	-3176	-2318
32	35	26793	32	25856	-937	-684
33	28	24877	20	17561	-7316	-5341
34	20	17561	24	22944	5383	3930
35	31	25856	28	24877	-979	-715
36	28	24877	29	25480	603	440
37	23	22944	23	22944	0	0
38	15	9639	11	0	-9639	-7036
39	19	17561	22	21049	3488	2546
40	20	17561	25	24225	6664	4865
41	28	24877	28	24877	0	0
42	25	24225	25	24225	0	0
43	22	21049	26	24225	3176	2318
44	30	25480	26	24225	-1255	-916
45	17	12255	16	9639	-2616	-1910
46	24	22944	25	24225	1281	935
47	33	26175	28	24877	-1298	-948
48	19	17561	21	21049	3488	2546
49	26	24225	27	24877	652	476
50	16	9639	18	12255	2616	1910
51	21	21049	28	24877	3828	2794
52	19	17561	19	17561	0	0
53	22	21049	27	24877	3828	2794
54	12	0	13	0	0	0
55	19	17561	20	17561	0	0
56	28	24877	30	25480	603	440
57	22	21049	24	22944	1895	1383
58	22	21049	23	22944	1895	1383
59	16	9639	15	9639	0	0
60	30	25480	26	24225	-1255	-916
61	28	24877	28	24877	0	0
62	21	21049	35	26793	5744	4193
63	14	0	28	24877	24877	18160
64	22	21049	26	24225	3176	2318
65	25	24225	28	24877	652	476
66	25	24225	28	24877	652	476
67	23	22944	26	24225	1281	935
68	23	22944	24	22944	0	0
69	25	24225	23	22944	-1281	-935
70	21	21049	22	21049	0	0
Total		£1,350,014		£1,541,561	£191,547	£139,829

17. Calculating the SROI Ratio

SROI ratios were calculated using the SVB for the base case and conservative case, and for the SWEMWBS value set. The results showed that for every £1 invested in AWW programmes, £2.07 to £4.85 of social value was generated for participants (Table 17.1).

Table 17.1: SROI Ratio using SVB

	Base case using SVB	Conservative case using SVB	SWEMWBS value set
Total social value	£145,258	£96,519	£139,829
Total social value per participant	£2,076	£1,382	£1,998
Total cost (minimum cost scenario)	£428	£428	£428
Total cost (maximum cost scenario)	£669	£669	£669
SROI ratio (minimum cost scenario)	£4.85 : £1	£3.23 : £1	£4.67 : £1
SROI ratio (maximum cost scenario)	£3.10 : £1	£2.07 : £1	£2.99 : £1

18. Discussion

Wellbeing valuation was applied to quantify and monetise four significant participant outcomes: mental wellbeing, confidence, social trust and physical activity. The decision to measure and value these four outcomes was based on the findings of informal in-house evaluations of AWW (Sultana 2016) and on research evidencing the benefits of nature-based interventions (Hartig et al., 2014, Shanahan et al., 2019).

Strengths of this study

Previous studies have evaluated the effectiveness of nature-based interventions, but this was the first to estimate the social value to people who participated in a 6 to 12-week woodland activities programme. Second, the validity of the results was strengthened from quantitative and qualitative data collected from 74 participant baseline and follow-up questionnaires. Third, the social value ratios calculated in this study were generated from two separate value sets - SVB and SWEMWBS. Both value sets are derived from wellbeing valuation, a consistent and robust method recommended in HM Treasury's Green Book (2018) for measuring social CBA.

Limitations of this study

First, the reliability of the results may have been hampered due to the lack of a control group. As a result, other factors (e.g., weather) may have influenced how participants completed baseline and follow-up questionnaires.

Second, a common issue is that researchers working with the same data may arrive at different SROI ratios (Fujiwara, 2015). Social trust, for example, could be matched in the SVB with either 'feeling belonging to neighbourhood' (£3,753 per person per year) or 'can rely on family' (£6,784 per person per year). Matching outcomes from study data with the most appropriate SVB value depends on the researcher's discretion. This can introduce potential researcher bias and the likelihood that estimates of social value can be upward-biased (Fujiwara, 2015).

Third, the AWW multi-activity programme was not standardised. Due to the skills and abilities of available woodland activity instructors, it is likely that the multi-activity programmes varied considerably in the delivery of content and skills. This makes it difficult to determine which woodland activities were most responsible for participant outcomes.

19. Recommendations

Overall, the results showed that AWW generated positive social value to participants. Quantitative and qualitative data from baseline and follow-up questionnaires indicated that many AWW participants improved in mental wellbeing, confidence, social trust, and levels of physical activity. Although AWW programmes provided good social value for money, social value ratios could be even higher by incorporating the following:

1) Offer more 8-week and fewer 12-week multi-activity programmes

Because the percentage of participants reporting improvement in outcomes was similar for 8-week and 12-week multi-activity programmes (Table 19.1), it could be cost-saving to offer more 8-week and fewer 12-week programmes.

Table 19.1: Comparing 8-week and 12-week multi-activity programmes

AWW Programmes	Mental wellbeing % of participants improved	Confidence % of participants improved	Social Trust % of participants improved	Physical Activity % of participants improved
12-week multi-activity (n=43)	63%	54%	48%	47%
8-week multi-activity (n=16)	69%	47%	56%	44%

2) Offer more mindfulness activities in multi-activity programmes

Because the percentage of participants reporting improvement in all outcomes was higher for 6-week mindfulness programmes than for 8-week or 12-week multi-activity programmes, social value ratios could also be higher by offering more 6-week mindfulness courses or by incorporating more mindfulness activities in multi-activity programmes (Table 19.2).

Table 19.2: Comparing mindfulness and multi-activity programmes

AWW Programmes	Mental wellbeing % of participants improved	Confidence % of participants improved	Social Trust % of participants improved	Physical Activity % of participants improved
6-week mindfulness (n=13)	78%	69%	54%	69%
8- to 12-week multi-activity (n=59)	65%	50%	50%	46%

3) Measure 'health and social care resource use' in routine monitoring of AWW participants

One important aim of AWW is to embed nature-based interventions in the UK health care system. To achieve this, it may be helpful to measure the health and social care use of participants before, during and after their AWW programme. If the result is less use of health and social care services by participants during and after their programme, then it is likely that AWW will generate cost-savings to the NHS and local authorities.

20. References

Cabinet Office. (2012). A Guide to Social Return on Investment. London.

Department of Health. (2014). 'Living Well: A compendium of factsheets: Wellbeing across the lifecourse'.

Dancer, S. (2014). Additionality Guide: Fourth Edition 2014. Home and Communities Agency.

- Edwards, R. T. and McIntosh, E. (Eds.) (2019). *Applied Health Economics for Public Health Practice and Research*. Series: Handbooks in health economic evaluation. Oxford University Press.
- Fujiwara, D. (2015). *The Seven Principle Problems of SROI*. Simetrica. London, UK.
- Fujiwara, D., Keohane, K., Clayton, V., and Hotopp, U. (2017). *Mental Health and Life Satisfaction: The Relationship between the Warwick Edinburgh Mental Wellbeing Scale and Life Satisfaction*. HACT and Simetrica. London, UK.
- Gittins, H., Wynne-Jones, S., and Morrison, V. (2021). *Woodlands and Wellbeing: Evaluating the 'Actif Woods Wales' Programme*, in *A Modern Guide to Wellbeing Research*. Edward Elgar Publishing, Cheltenham, UK.
- HM Government. (2018). *A Green Future: Our 25 Year Plan to Improve the Environment*. London.
- HM Treasury. (2018). *The Green Book: Central Government Guidance on Appraisal and Evaluation*. London.
- Hartig, T., Mitchell, R., de Vries, S. and Frumkin, H. (2014). Nature and health. *Annual review of public health*, 35:207-228.
- Isard, P. (2017). *Global Action Plan Ireland – A Social Impact Analysis of the Impact of Global Action Plan Ireland*. Dublin.
- Linton, M-J., Dieppe, P., and Medina-Lara, A. (2016). Review of 99 self-report measures for assessing well-being in adults: exploring dimensions of well-being and developments over time. *BMJ Open*, 6(7).
- Lovell, R. and Maxwell, S. (2017). *Evidence Statement on the links between natural environments and human health*. Department for Environment, Food and Rural Affairs.
- Natural England. (2016). 'A review of nature-based interventions for mental health care (NECR204)', 9th February 2016.
- New Economics Foundation. (NEF). (2012). *Measuring Well-being A guide for practitioners*.
- OECD. (2018). *Cost-Benefit Analysis and the Environment: Further Developments and Policy Use*. OECD Publishing, Paris.
- Schwarzer, R., and Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, and M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs*. 35-37.
- Shanahan, D., et al. (2019). Nature-Based Interventions for Improving Health and Wellbeing: The Purpose, the People and the Outcomes. *Sports*, 7(6).
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., and Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): A Rasch analysis using data from the Scottish Health Education Population Survey. *Health and Quality of Life Outcomes*.
- Sultana, F. (2016). 'Accruing health benefits from attending Actif Woods intervention programme, based in a natural environment', Unpublished Masters Thesis, Bangor University.
- Trotter, L., Vine, J., Leach, M., Fujiwara, D. (2014). *Measuring the Social Impact of Community Investment: A Guide to using the Wellbeing Valuation Approach*. HACT. London, UK.
- Trotter, L., Rallings Adams, M-K. (2017). *Valuing improvements in mental health: Applying the wellbeing valuation method to WEMWBS*. HACT. London, UK.
- Verducci S. and Schröer A. (2010) Social Trust. In: Anheier H.K., Toepler S. (eds) *International Encyclopedia of Civil Society*. Springer, New York.
- Welsh Assembly Government. (2014). *Social Services and Well-being (Wales) Act 2014*. Cardiff.
- Welsh Assembly Government. (2015). *Wellbeing of Future Generations Act*. Cardiff.
- Williams and Penman (2011). *Mindfulness a practical guide to finding peace in a frantic world*. Hachette UK.

21. Appendix 1: Participant Information Sheet

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

COLEG GWYDDORAU NATURIOL
COLLEGE OF NATURAL SCIENCES



RESEARCH STUDY: EVALUATING THE IMPACTS OF ACTIF WOODS WALES ON PERSONAL WELLBEING

You are being invited to take part in our study to evaluate the impacts of the Actif Woods Wales 12 week woodland based health and well-being course on personal wellbeing. Before you decide, it is important for you to understand why the study is being done and what it will involve for you. Please read this information sheet and feel free to discuss it with others if you wish. You can ask us anything that isn't clear to you or that you want to know more about. Take your time to decide whether or not you would like to take part.

What is the purpose of the study?

We want to understand more about how the Actif Woods Wales programme affects the wellbeing of people who take part. We also want to know more about how you use woodlands outside of the programme.

Why am I being asked to take part?

You are one of the people using the Actif Woods Wales service.

Do I have to take part?

It is your choice. If you decide to take part, you will be given this information sheet to keep and asked to sign a consent form. You can withdraw at any time and you don't need to give us a reason. If you decide not to take part or to withdraw at a later date, your choice will in no way affect your involvement with Actif Woods Wales.

What will I need to do if I take part?

We will give you a questionnaire to complete at week 1 of the 12 week course. This will take between 10 and 20 minutes. We will be available to answer any questions and will collect the questionnaire from you.

The questionnaire is in 3 parts:

1. Questions about you
2. Questions about your wellbeing
3. Questions about your visiting woodlands

Follow up

We will contact you again at the end of the course and in 3 months time to ask you the same questions to see how you are getting on. We will get in touch with you through Actif Woods Wales. We will ask you for your contact details if this isn't possible so we can contact you directly.

What if I need help to fill out the questionnaire?

We will be available to help with the questionnaire in case you have any difficulties like sight or literacy.

Will my answers be confidential?

Any information you give us will be confidential. Your personal details will be detached from the questionnaire and stored separately from your answers. You will be assigned a unique code for your questionnaire so that your data is not identifiable. The reason we need your personal details is solely so we can contact you for the follow up questionnaires. Any findings reported after the study will be completely anonymous.

What will happen to the results?

We will write a report based on the results for the Woodland Trust and Actif Woods Wales and publish the results in academic journals and at conferences – please tick the box on the consent form if you would like a summary of the report.

Who has developed this study?

This study has been developed by Bangor University researcher Heli Gittins, under the supervision of Professor Val Morrison and Dr Sophie Wynne-Jones. It has been developed in partnership with Actif Woods Wales and The Woodland Trust.

Focus groups and interviews

We are looking for a small number of volunteers to take part in an end of course focus group, and/or a 30 minute interview 3 months after the course to hear more about people's experiences in their own words. These will be recorded by the researcher, but kept confidential and answers will be anonymous in any write ups.

This is completely optional – you can just take part in the questionnaire, or not at all and whatever you decide won't affect your taking part in the study or the 12 week programme as a whole.

Contacts

If you would like any further information about the study, please feel free to contact the researcher, the supervisors or speak to one of the Actif Woods Wales team:

Project researcher: Heli Gittins heli.gittins@bangor.ac.uk

Project supervisors: Prof Val Morrison v.morrison@bangor.ac.uk
Dr Sophie Wynne-Jones s.wynne-jones@bangor.ac.uk

Complaints:

If at any time you have any complaints about the way this research study was carried out please contact the School Manager: Mr Hefin Francis, School Manager, School of Psychology, Bangor University, Bangor, Gwynedd, LL57 2DG h.francis@bangor.ac.uk

Thank you for your time

22. Appendix 2: Baseline Questionnaire

ACTIF WOODS WALES QUESTIONNAIRE

Participant Number:..... (For researcher to complete)

SECTION A

Please circle your answer to the following questions:

1. Your gender: Male/Female/Non-binary/Other

2. Your age: 18 – 24 25 – 44 45 – 64 65 – 74 75 +

3. Your first language: Any second language:

4. Best description of your ethnic group or background:
White British White Other
Mixed/ Multiple ethnic groups Black/ African/ Caribbean/ Black British
Asian/ Asian British Arab
Chinese Other ethnic group

5. What is the highest level of education you have completed?
 Secondary School to 16 years
 Secondary School to 18/19 years
 Special Educational Needs School
 Between secondary level and university (e.g. technical training)
 University
 Other, please state:

6. Are you currently employed, and if so, what do you do?
(Job title, full or part-time)?

.....

7. Are you currently retired? If formerly employed, what was your employment
(Job title, full or part-time)?

.....

<p>8. If any, can you list your main health issues or concerns (e.g. heart disease, dementia, depression)?</p>
--

9. What are you hoping to gain from getting active in the woodlands as part of a group?

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Social benefits (e.g. meeting new people, making friends)	1	2	3	4	5
Being in nature (e.g. being outside)	1	2	3	4	5
Physical health benefits (e.g. feeling fitter, losing weight)	1	2	3	4	5
Mental health benefits (e.g. feeling happier, less stressed)	1	2	3	4	5
Education (e.g. learning new things)	1	2	3	4	5
Support (e.g. practical or emotional)	1	2	3	4	5
Other, please specify	1	2	3	4	5

<p>10. What, if any, other regular and lead activities do you take part in? (e.g. gardening programme, walking group)</p>

SECTION B

11. A. On how many days in the past 7 days have you done at least 30 minutes of physical activity? (Only count physical activity that increased your heart and breathing rate, or that made you sweat a bit)

0	1	2	3	4	5	6	7
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B. How many of the above were Actif Woods Wales Days?

12. Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the past 2 weeks.

STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been able to make up my own mind about things	1	2	3	4	5

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13. Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please give a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted.

Can't be too careful						Most people can be trusted				
0	1	2	3	4	5	6	7	8	9	10

14. For the following question, please tick the one box that best describes your answer. In general, would you say your health is:

Excellent	Very good	Good	Fair	Poor
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

SF-12v2™ Health Survey © 1992-2002 by Health Assessment Lab, Medical Outcomes Trust and QualityMetric Incorporated. All rights reserved.

15. Below is a list of statements dealing with your general feelings about yourself. Please indicate to what extent they are true for you by ticking one box for each question.

STATEMENTS	Not at all true	Hardly True	Moderately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough.	1	2	3	4
2. If someone opposes me, I can find the means and ways to get what I want.	1	2	3	4
3. It is easy for me to stick to my aims and accomplish my goals.	1	2	3	4
4. I am confident that I could deal efficiently with unexpected events.	1	2	3	4
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	2	3	4
6. I can solve most problems if I invest the necessary effort.	1	2	3	4
7. I can remain calm when facing difficulties because I can rely on my coping abilities.	1	2	3	4
8. When I am confronted with a problem, I can usually find several solutions.	1	2	3	4
9. If I am in trouble, I can usually think of a solution.	1	2	3	4
10. I can usually handle whatever comes my way.	1	2	3	4

©Schwarzer and Jerusalem, 1993

16. Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
2	I feel that I have a number of good qualities.	SA	A	D	SD
3	All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
4	I am able to do things as well as most other people.	SA	A	D	SD
5	I feel I do not have much to be proud of.	SA	A	D	SD
6	I take a positive attitude towards myself.	SA	A	D	SD
7	On the whole, I am satisfied with myself.	SA	A	D	SD
8	I wish I could have more respect for myself.	SA	A	D	SD
9	I certainly feel useless at times.	SA	A	D	SD
10	At times I think I am no good at all.	SA	A	D	SD

©Rosenberg, 1965

SECTION C

17. Before you started the AWW programme, approximately how regularly would you visit woods? Please circle:

Never	Once or twice a year	Three or four times a year	Monthly	Weekly or more
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18. Have any of the reasons listed below ever stopped you from visiting the woods outside a structured programme like Actif Woods Wales? Please tick any that apply, ticking the box to indicate whether it is a major reason or a minor reason:

REASONS FOR NOT VISITING	MAJOR REASON	MINOR REASON	NOT A REASON
Cost			
Not interested			
Difficulty in moving around			
Health reasons			
Prefer other areas of countryside			
Lack of confidence			
Too busy/Not enough time			
Concerns that woods are not safe			
Don't have a car			
Too far away			
Lack of public transport			
Lack of information			
Lack of facilities			
Woodlands are badly maintained			
No-one to go with			
Bad weather			
Other reasons, please specify			

19. What are the top 3 factors that would encourage you to go to the woods, outside of a structured programme like Actif Woods Wales?

1.
2.
3.

At the end of the course and in 3 months time we will ask you a similar set of questions, to see how/if things are changing for you.

If you want to add any comments about these question or the answers you have given, please feel free to do so here:

About the authors:



Professor Rhiannon Tudor Edwards is Co-Director of the Centre for Health Economics and Medicines Evaluation, Bangor University. Bringing together work by colleagues at Bangor University and University of Glasgow, Rhiannon co-edited the fifth in the series 'Handbooks in Health Economic Evaluation.' Rhiannon is a Fellow of the Learned Society of Wales and Senior Research Leader for Health and Care Research Wales, for whom she co-directs the Welsh Health Economics Support Service (WHESS).



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You're out physically doing something, and then you're learning, too, and then the spiritual side is being out in the woods. I've found for my recovery that it's in my best interest to do something physical, something mental, and something spiritual every day to maintain my abstinence. Actif Woods can do that on all three levels'



Actif Woods participants enjoying woodland skills and conversation activities