



# OPENING DOORS TO THE OUTDOORS: SOCIAL RETURN ON INVESTMENT ANALYSIS

Inspiring community participation to improve physical activity, mental wellbeing and social connection

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# Executive Summary

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**Background:**

Increased levels of physical activity are associated with decreased levels of anxiety and with improved wellbeing. Individuals who experience low mental wellbeing have a shorter life expectancy, tend to neglect physical health and lead sedentary lifestyles.

The Opening Doors to the Outdoors (ODO) programme is aimed at inactive individuals who experience low mental wellbeing in North Wales. The ODO programme is a 12-week walking and climbing intervention which provides people with low mental wellbeing the opportunity to increase physical activity, confidence, self-esteem and quality of life in a supportive environment enabling socialisation with peers.

**Aim:** The purpose of this evaluation is to estimate the social return on investment (SROI) of the ODO programme by comparing the costs of delivering the programme with the monetised outcomes experienced by ODO clients in terms of improved mental wellbeing, physical activity, social trust and overall health.

**Methods:** The SROI of ODO programme was conducted between April 2022 and November 2022 by the Social Value Hub at the Centre for Health Economics and Medicines Evaluation (CHEME) at Bangor University. The SROI evaluation involved a mixed method approach with data collected from baseline and follow-up questionnaires as well as from semi-structured interviews.

Questionnaires included four outcome measures: Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), International Physical Activity Questionnaire – Short Form (IPAQ-SF), New Economics Foundation (NEF) social trust question, and an overall health question. Wellbeing valuation methods were used to quantify and value these four outcomes.

SROI ratios were generated from two separate wellbeing valuation methods: one from the Social Value Calculator v.4.0 (HACT, 2018) and the other from the Mental Health Social Value Calculator v.1.0 (HACT, 2017). Both calculators are derived from wellbeing valuation, a consistent and robust method recommended in the HM Treasury Green Book (2022) for measuring social cost-benefit analysis.



**Results:**

75 clients completed baseline questionnaires and 52 clients (69%) completed follow-up questionnaires. The results showed that for every £1 invested in ODO programmes, £4.90 to £5.36 of social value was generated for stakeholders. In addition, interviews with clients indicated improved mental wellbeing, increased physical activity, more social trust and better overall health.

**Discussion:**

This was one of the first studies to use wellbeing valuation in estimating the social value to clients who participated in outdoor walking or climbing programmes. Several previous studies have estimated the SROI of outdoor walking interventions. However, these studies used more subjective valuation methods to calculate SROI ratios.

The reliability of the results in this ODO evaluation may have been limited due to the lack of a control group. However, the HACT Mental Health Social Value Calculator considered this by subtracting a 'deadweight' percentage of 27% from the total social value. Similarly, the HACT Social Value Calculator subtracted percentages for deadweight, attribution and displacement to avoid overestimating the social value generated from the programme.

Although the ODO programme generated a positive social value for client outcomes, ODO clients did not report a reduction in their use of NHS mental health services. As this evaluation was only for eight months, future studies should measure client health service resource use over a longer period of time.

**Conclusion:**

The results showed that the ODO programme generated a positive social value to clients. Quantitative and qualitative data from baseline and follow-up questionnaires indicated that many clients improved in mental wellbeing, physical activity, social trust, and overall health.



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# Background

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Increased levels of physical activity are associated with improved physical and mental well-being, quality of life, and improved life expectancy (NICE, 2013a; Marconcin, et al, 2022). In 2015, the NHS in Wales spent £35 million treating preventable diseases caused by physical inactivity (Public Health Wales, 2017).

More than 30% of adults in Wales spend less than half-an-hour a week being active, substantially below the recommended guidelines of 2.5 hours of moderate physical activity each week for adults. In addition, the percentage of people reporting depression in the UK rose from 10% pre-pandemic to 17% by July 2021 (Office for National Statistics, 2022). In 2022, NHS England injected £4 million to integrate green social prescribing into local communities to combat low mental wellbeing and reduce health inequalities (NHS England, 2022).

The Outdoor Partnership supports the people of Wales to increase physical activity and improve mental wellbeing by encouraging grassroots participation in activities such as outdoor walking and climbing.

The Outdoor Partnership's ODO programme is a four year pilot project funded by the Healthy and Active Fund. The ODO programme specifically aims to address the inactivity levels of people in North Wales experiencing low mental wellbeing. People who experience enduring low mental wellbeing have a shorter life expectancy, often due to a sedentary lifestyle and neglect of their physical health.

ODO provides people with the opportunity to build confidence, self-esteem, physical fitness and quality of life in a supportive environment. ODO enables people to socialise with others who are also experiencing low mental wellbeing. The goal of ODO is to increase physical activity, enhance mental wellbeing and promote social interaction in a natural environment.

ODO is a 12-week intervention involving one 4-hour activity session per week. ODO sessions focus on either low-level walking or indoor climbing. Each session includes time for socialisation, either an outdoor picnic or café visit. ODO instructors encourage clients to connect with one another and develop friendships.

The ODO programme occurs in seven sites across North Wales: six of the sites offer walking interventions (Anglesey Caernarfon, Dolgellau, Holyhead, Porthmadog, and Wrexham) and one site offers a climbing intervention (Anglesey). Clients are referred to ODO by GPs, community mental health teams (CMHTs), job centres, third sector organisations, and substance misuse rehabilitation centres such as Adferiad Recovery and Penryn House.

## Walking Groups

Each weekly session includes outdoor walking, hill and mountain skills, and social connection. During the 12-week programme, four sessions focused on the hill and mountain skills which provided clients with the skills and knowledge to be independent walkers. Walking routes varied from week to week to avoid repetition and to meet the needs of clients. ODO instructors progressed the difficulty of the walks according to client abilities.

## Climbing Groups

Each weekly session focuses on indoor or outdoor climbing, and social connection. Climbing skills include learning how to use climbing equipment, low-intensity traversing and bouldering, top rope climbing, abseiling and climbing efficiency. A café visit at the end of the session was offered to encourage social connection.





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# Outdoor Partnership Research Study

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In February 2022, the Life Sciences Hub Wales at Cardiff University sponsored a formal study to investigate the social value generated from the ODO programme. The Outdoor Partnership asked Bangor University's Centre for Health Economics and Medicines Evaluation (CHEME) to provide an independent SROI analysis of the ODO programme. This study was sponsored by the Accelerate Wales healthcare R&D innovation programme, part funded by Welsh Government's European Regional Development Fund – Economic Strand. The study received ethical approval from Bangor University and was conducted by researchers at CHEME's Social Value Hub.

During this eight month study conducted between April 2022 and November 2022, 75 clients from seven ODO sites across Wales completed a baseline questionnaire at the start of their programme and 52 clients (69%) completed a follow-up questionnaire at the end of their programme. Questionnaires were co-produced by The Outdoor Partnership, the Bangor University research team and previous clients of the ODO programme.

Of the 52 clients who completed follow-up questionnaires:

- 94% were white British, 4% mixed-ethnicity and 2% Asian
- 64% were male, 34% women and 2% transgender
- 96% were aged 18 to 64

*"Just being outdoors in the fresh air for a period of hours was definitely a benefit for me and also a benefit was meeting people"*

Male ODO client 35 to 44 years old

Outcome measures included the Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), International Physical Activity Questionnaire – Short Form (IPAQ-SF), New Economics Foundation (NEF) social trust question, and an overall health question. In addition, a client service resource inventory (CSRI) form was created to measure client engagement with NHS mental health services. The HACT Social Value Calculator v.4.0 was used to monetise the outcomes of increased physical activity, social trust and overall health. The HACT mental health Social Value Calculator v.1.0 was used to monetise the outcome of mental wellbeing. Qualitative data was collected from interviews (n=6) with ODO clients.



# Overview of Social Return on Investment (SROI)

The National Institute for Health and Care Excellence (NICE) advocates the use of cost-benefit analysis (CBA) for evaluating public health interventions (NICE, 2013b). Social CBA is recommended in the HM Treasury Green Book for assessing the impact of interventions on wellbeing (New Economics Foundation, 2012; HM Treasury, 2022). SROI is a bottom up pragmatic form of social CBA which uses quantitative and qualitative methods to value relevant costs and outcomes (Hamelmann et al, 2017; Maher and Buhmann, 2019; Edwards and Lawrence, 2021).

SROI helps organisations to quantify and value the social value they generate. SROI captures, in a monetised form, the value of a wide range of outcomes which may not have market prices. An SROI analysis produces a narrative for how an organisation creates value for key stakeholders and provides a ratio that states how much social value (in £) is created for £1 of investment.

SROI methodology is outlined in the Cabinet Office Guide to Social Return on Investment (Nicholls, Lawlor and Nietzert, 2012). SROI considers outcomes that are relevant to stakeholders and then assigns monetary values to these outcomes. Examples of relevant outcomes for clients in this ODO study are increased levels of mental wellbeing, physical activity, social trust and overall health. Using wellbeing valuation, the social value of relevant outcomes is compared with the total costs to estimate the SROI ratio (Figure 1).

$$\text{SROI ratio} = \frac{\text{Social value of ODO stakeholder outcomes}}{\text{Cost of delivering ODO programmes}}$$

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 social value calculators: the Social Value Calculator derived from the Social Value Bank (SVB), and the Mental Health Social Value Calculator derived from the Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS).

In this study, the Mental Health Social Value Calculator was used to monetise mental wellbeing, and the Social Value Calculator was used to monetise the outcomes of physical activity, social trust and good overall health (Trotter and Rallings Adams, 2017) (Table 1).

**Table 1: Wellbeing valuation**

Outcome	Outcome measure	Wellbeing Valuation Method
Mental wellbeing	SWEMWBS	Mental Health Social Value Calculator v.1.0
Physical activity	IPAQ-SF	Social Value Calculator v.4.0
Social Trust	NEF Social Trust Question	Social Value Calculator v.4.0
Good health	Overall health question	Social Value Calculator v.4.0

The aim of this SROI was to establish how inputs (e.g. costs) were converted into outputs (e.g. numbers of clients), and subsequently into outcomes (e.g. improved mental wellbeing). The social value generated by these outcomes was then estimated in a similar way to CBA, with a ratio comparing the cost per client with the social value generated per client. The SROI analysis was operationalised through the six stages outlined in the Guide to Social Return on Investment (Nicholls, Lawlor and Nietzert, 2012): identifying stakeholders, developing a theory of change, calculating inputs, evidencing and valuing outcomes, establishing impact and calculating the SROI ratio.



# Identifying Stakeholders

The primary stakeholders were the clients who directly experienced the ODO programme, and the National Health Service (NHS) who may have experienced a change in mental health service resource use by ODO clients. At baseline and follow-up, outcome data and mental health health service resource use data was collected from clients. Due to the scope of this study, data was not collected from other stakeholders who may have also benefited from ODO such as ODO Instructors (Table 2).

**Table 2: Inclusion of stakeholder groups in analysis**

Stakeholders	Included	Reason
ODO clients	Yes	Clients were the main beneficiaries of the programme
NHS	Yes	The NHS was a potential beneficiary of the programme if clients experienced reduced health service resource use.
Registered ODO Instructors	No	ODO instructors were employed to deliver the programme, and any personal benefits were incidental.

*"It's only coffee and cake but it's a big deal. It's a nice touch to have because it enables you to have a chat and just slow down."*

Male ODO client, 35-44 years old

*"I've just started the climbing course and doing more productive outdoor activities than before."*

Male ODO client, 35-44 years old

## Eligibility

Eligibility included adults (18 years or older) who were experiencing a physical, mental or social issue that could benefit from the ODO programme. All clients required an ability to speak Welsh or English and a mental capacity to be able to reflect on their own wellbeing.

## Outcome measures for ODO clients

Clients who completed a baseline and follow-up questionnaire were included in the SROI analysis. Questionnaires captured demographic information, mental health service resource use and outcome measures for mental wellbeing, physical activity, social trust and overall health.

## **1. Mental wellbeing - 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. Physical Activity - IPAQ - SF**

Clients were asked: "During the last 7 days, on how many days did you do walk for at least ten minutes at a time? How much time did you usually spend walking on one of those days? The IPAQ-SF is a reliable questionnaire when specifically applied to monitoring levels of physical activity among adults aged 18-65 (Craig et al., 2003; Ács et al., 2021).

## **3. Social Trust - NEF Social Trust Question**

Social trust refers to 'being able to rely on others behaving in a particular way' (Verducci and Schröer, 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. Overall health question**

At follow-up, clients were asked to respond to three statements about what has changed for them due to the ODO programme: 'I feel fitter'; 'I feel like I am able to take better care of myself'; 'My overall physical health has improved'. Overall scores for each statement ranged from 1 to 4 with 1 = a little change, 2 = some change, 3 = quite a lot of change and 4 = a lot of change. A combined score of six or more from these three statements represented a significant improvement in overall health.

## **5. Client Service Receipt Inventory (CSRI)**

An adapted CSRI form was used to record the number of mental health-related visits that ODO clients had with primary care health professionals (i.e., GPs, nurses) and with the community mental health team (i.e., clinical psychologists, mental health nurses) (Ridyard and Hughes, 2010). Clients reported the number of visits to health professionals, three-months prior to and three-months during their ODO programme.

## **Interviews with ODO clients**

In addition to completing questionnaires, six clients attended an interview of approximately 30 minutes. Facilitated by a Bangor University researcher, the interview occurred online. The purpose of the interview was to further explore the clients' experience of the ODO programme. Informed consent was obtained from clients prior to being interviewed. Interviews were audio-recorded and transcribed.



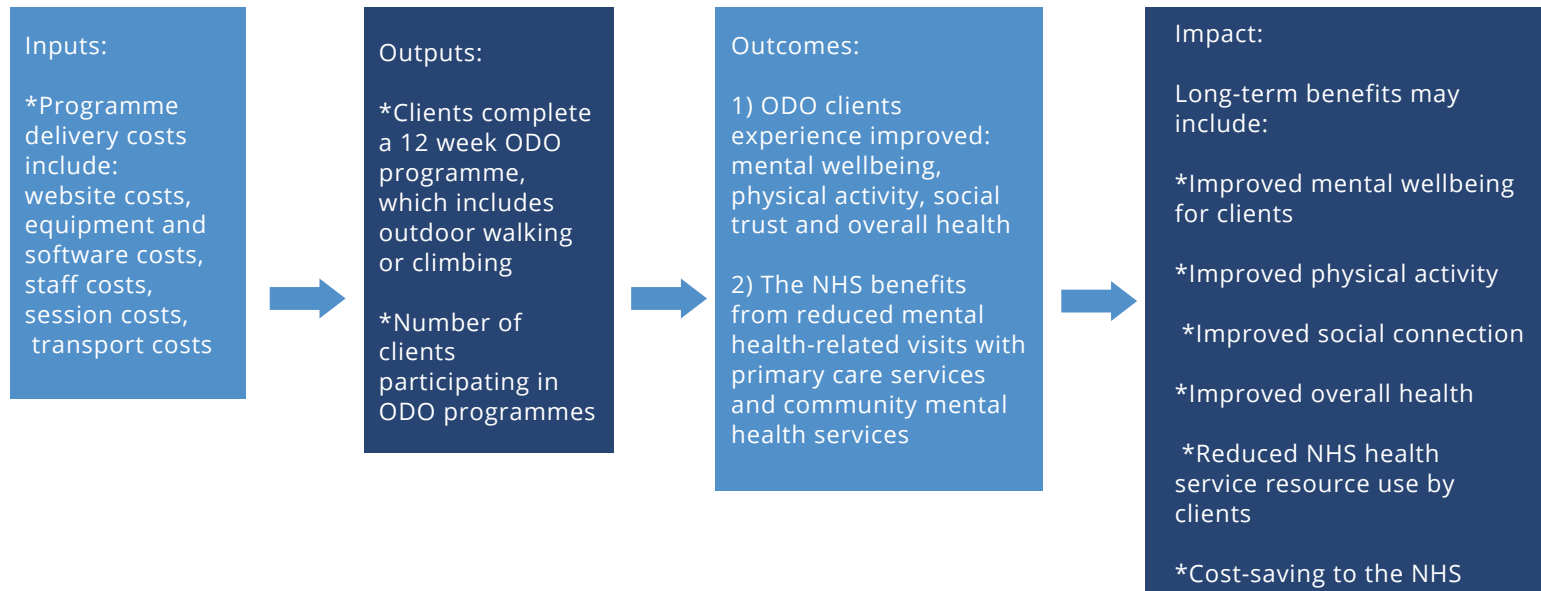
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# Developing a Theory of Change

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A Theory of Change model was created to identify the expected changes experienced by ODO clients. Often used in programme development and evaluation, Theory of Change models illustrate the links between the inputs, outputs, outcomes, and impact (Figure 2).

**Figure 2: Theory of Change Model**



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## Calculating Inputs

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To identify costs, researchers consulted with ODO staff. Total costs for ODO programmes included website costs, equipment and software costs, overhead costs, staffing costs, session costs and transport costs (Total annual costs for the ODO programme are 17% of the total annual costs of The Outdoor Partnership (Table 3).

### Website costs

This included website domain hosting, and monthly costs for secure payment systems.

### Equipment and software costs

This included the cost of the Health and Wellbeing Officer's (HWO) laptop, mobile phone, mobile phone contract, and additional outdoor equipment for clients (e.g. rain jackets, waterproof trousers, walking poles, boots and rucksacks). Annual mobile phone and laptop costs are based on a five year lifetime in which they are expected to perform under heavy usage.

### Overhead costs

This included ongoing operation costs such as insurance, accounting and payroll, and office rent. The office rent included the cost of electricity, heating, internet, maintenance, office supplies, and telephone bills. Insurance covered both general liability insurance and professional liability insurance.

### **Staff costs**

This included 40% of the annual salaries for the HWO and the Programme Support Officer (PSO). The HWO was responsible for the day to day operations of the ODO programme. This role included administrative duties such as developing referrals, contacting referral organisations, communicating with clients, coordinating with instructors, and updating social media. The PSO was responsible for overall project management of The Outdoor Partnership.

### **Session costs**

Session costs for walking groups included the cost of the instructor and expenses for café visits. Session costs for climbing group included the cost of the instructor, admission fees for indoor climbing, equipment hire and expenses for café visits.

### **Transport costs**

This included costs for clients to travel to and from ODO venues. Travel costs included monthly van lease costs, vehicle insurance, road tax, and petrol/mileage costs. Before COVID-19, referral organisations were responsible for the cost of transporting clients to and from ODO sessions. During and after the pandemic, The Outdoor Partnership assumed responsibility for transport

*"There's people here that are going to be doing their hills course... I'm going to be doing my lowlands so it's not just kind of go for your 12 weeks and that's it."*

ODO Male Client 35-44 years old



Image courtesy of Rob Johnson, Film Up High

**Table 3: Annual costs for Opening Doors to the Outdoors**

<b>Cost category</b>	<b>Total Outdoor Partnership Costs</b>	<b>ODO Programme Costs (17% of Outdoor Partnership costs)</b>
<b>Website (Total)</b> <ul style="list-style-type: none"> <li>Website hosting</li> <li>Website payment system</li> </ul>	<b>£1608</b> £960 £648	<b>£273</b> £163 £110
<b>Equipment &amp; software (total)</b> <ul style="list-style-type: none"> <li>Laptop</li> <li>Mobile phone</li> <li>Mobile phone bill</li> <li>Waterproof clothing &amp; equipment for clients</li> </ul>	<b>£2422</b> £930 £998 £216 £278	<b>£381</b> £32 £34 £37 £278
<b>Overheads (Total)</b> <ul style="list-style-type: none"> <li>Company insurance</li> <li>Accounting costs</li> <li>Office costs</li> </ul>	<b>£14,931</b> £4,319 £5,098 £5,514	<b>£2538</b> £734 £867 £937
<b>Staffing (Total)</b> <ul style="list-style-type: none"> <li>Health and wellbeing Officer (40% FTE for ODO Programme)</li> <li>Programme Support Officer (40% FTE for ODO Programme)</li> </ul>	<b>£71,400</b> £30,600 £40,800	<b>£34,023</b> £18,558 £15,456
<b>Session (Total)</b> <ul style="list-style-type: none"> <li>Client admission (Climbing group only)</li> <li>Instructor Fee</li> <li>Tea, Coffee and Refreshments</li> </ul>	<b>£0</b> n/a n/a n/a	<b>£36,065</b> £360 £35,280 £425
<b>Transport (Total)</b> <ul style="list-style-type: none"> <li>Vehicle insurance</li> <li>Vehicle Tax</li> <li>Petrol/mileage</li> </ul>	<b>£1,626</b> £1,136 £490 n/a	<b>£849</b> £193 £83 £573
<b>Total cost per year</b>	<b>£91,987</b>	<b>£74,129</b>
<b>Total cost per client per year*</b>	<b>n/a</b>	<b>£706</b>

\*Total cost per client is based on 105 ODO clients per year (3 twelve-week programmes per year, 35 clients per programme)



## Evidencing Outcomes

Analysis of questionnaire data indicated that most clients were working-age, unemployed, white British male, and had a chronic health condition (Table 4).

**Table 4: Overview of ODO clients**

ODO clients	
Age	96% 18-64 Years old (mean age 48 Years old)
Gender	64% male, 34% female, 2% transgender
Ethnic origin	96% white British
Health Status	71% of clients cited a chronic condition (E.g. anxiety, asthma, COPD, diabetes, depression, epilepsy, multiple sclerosis, psychosis.
Employment status	67% of clients were unemployed at baseline 63% of clients were unemployed at follow-up
ODO client group distribution	41 walking clients 11 climbing clients





## Outcome 1: Mental Wellbeing (SWEMWBS)

- 69% (35/51) clients reported an improvement of 1 point or more
- 43% (22/51) clients reported an improvement of 5 points or more
- 12% (6/51) reported an improvement of 10 points or more

Qualitative data indicated that ODO clients experienced improved mental wellbeing.

*"I've gained confidence... I feel as if there's nothing I can't really do."*

Female ODO client, 45-54 years old

*"I got out and it was just gaining confidence, going out and speaking to people that were the same as me."*

Female ODO client, 18-24 years old

## Outcome 2: Physical Activity

- 44% (22/50) clients reported an improvement of 30 minutes or more
- 36% (18/50) clients reported an improvement of 60 minutes or more
- 22% (11/50) reported an improvement of 90 minutes or more

*"I was told I'd never be able to walk long distances again so with this, it's proven that I can do it even with having a disability ... it is having parts of my old life back."*

Female ODO client, 45-54 years old

*"So many people would benefit from the walking group ... and the fact that anyone can do it. Even if you've got a wheelchair, you can do it."*

Female ODO client, 35-44 years old

### Outcome 3: Social trust

- 57% (27/47) clients reported an improvement of 10% or more
- 38% (18/47) clients reported an improvement of 20% or more
- 4% (2/47) reported an improvement of 50% or more

*"Just knowing that there were other people made you feel a bit more normal."*

Female ODO client 35-44 years old

*"I now meet one of the members of the walking group. We've been able to share a lot. I wouldn't have had that friendship had I not partaken in this."*

Female ODO client 35-44 years old

### Outcome 4: Overall health

- 54% (19/35) clients reported an improvement of 6 points or more
- 46% (16/35) clients reported an improvement of 8 points or more
- 26% (9/35) reported an improvement of 10 points or more

*"Participating has reminded me of my love of walking, particularly helped me to reconnect with nature and the outdoors, and to use this as a tool to benefit my general health."*

Female ODO client 25-34 years old

*"It [The ODO Programme] is good for everybody's health."*

Female ODO client 55-65 years old

# Social Value Calculator

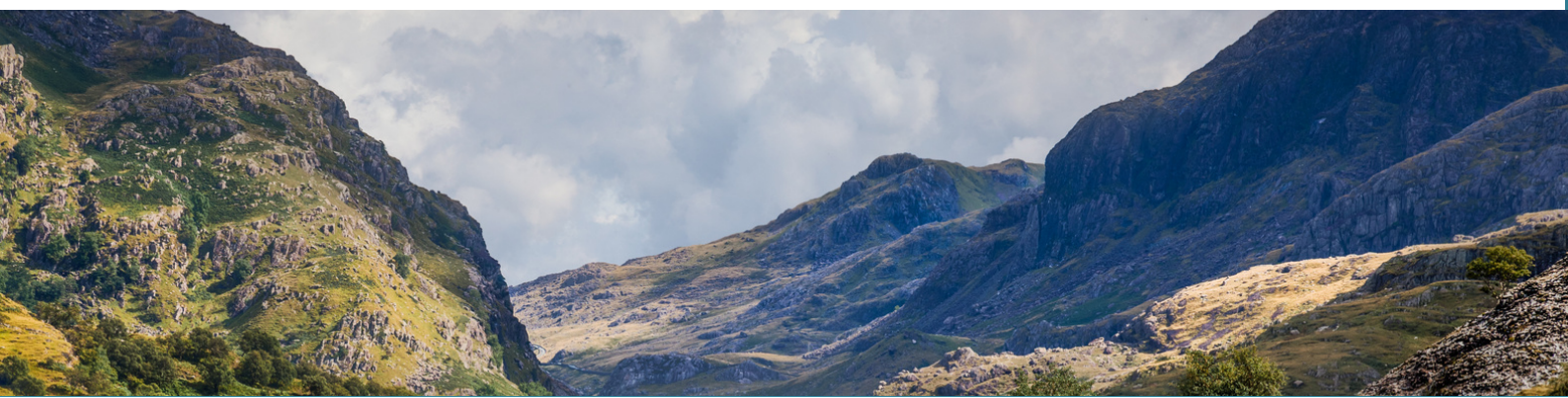
Once the data was quantified, wellbeing valuation was applied to place monetary values on the quantity of change. The Social Value Calculator uses values from the HACT Social Value Bank (SVB), which includes approximately 120 methodologically consistent and robust social values. Often used in SROI and Social CBA, SVB values provide a basic assessment of social value. Examples of SVB values for health outcomes are illustrated below (Table 5).

**Table 5: Examples of SVB monetary values for health outcomes**

Health outcome	Average monetary value from SVB
Physical Activity (Walking)	£5,281 per person per year
Feeling belonging to neighbourhood (social trust)	£3,537 per person per year
Good overall health	£20,141 per person per year

In this study, SVB values were used to monetise the quantity of outcomes for improvements in physical activity (walking), social trust and overall health.

- **Physical Activity:** The SVB value of regular walking is estimated at £5,281 per person per year, which was the value assigned to a 60-minute improvement in regular walking.
- **Social Trust:** The SVB value for social trust is estimated at £3,753 per person per year, which is the value assigned to 'feeling a sense of belonging to neighbourhood'. This was indicated by a 10% change in the NEF Social Trust baseline and follow-up responses.
- **Overall health:** The SVB value for good overall health is estimated at £20,141 per person per year. This is indicated by a score of six points or more on the overall health question in the follow-up questionnaire.



**Table 6: Quantity of outcomes and total social value**

Outcomes:	Indicators	Quantity	Financial value	Total social value for clients	Social value per participant
<b>Physical Activity (Walking)</b>	IPAQ-SF: baseline and follow-up questionnaires	22 / 50 reported an increase of 60 minutes or more per week	£5,281 per year for walking	£116,182	£2,324 (n=50)
<b>Social Trust</b>	NEF Social Trust Question: baseline and follow-up questionnaires	27/ 47 reported an increase of 10% or more	£3,753 per year for feeling a sense of belonging to neighbourhood	£101,331	£2,156 (n=47)
<b>Good Overall Health</b>	Overall health question: follow-up questionnaire	19/35 reported an improvement of 50% or more	£20,141 per person per year for significant improvement in good overall health	£382,679	£10,934 (n=35)
				<b>£597,883</b>	<b>£15,414</b>

### Deadweight, Attribution and Displacement

To avoid over-claiming, SROI methodology requires that deadweight, attribution and displacement are considered (Table 7).

#### Deadweight

Deadweight reflects the possibility that a proportion of the outcomes for clients could have happened anyway without the ODO programme. In this study, the follow-up questionnaire asked clients: *"How much of the positive change that you have experienced from The Outdoor Partnership programme would have happened anyway if you had not participated in the programme?"* The results indicated a mean deadweight of 49%.

#### Attribution

Attribution acknowledges that a proportion of the outcomes could be attributable to factors other than the ODO programme. In this study, the follow-up questionnaire asked clients: *"How much of this change was due to the ODO coaching programme?"* The results indicated a mean attribution of 47%.



## Displacement

Displacement considers whether clients had to give up any other activities that could have contributed to their wellbeing. In this study, the follow-up questionnaire asked clients: *“By participating in the ODO coaching programme over the last several months, how much have you had to give up other activities that benefitted your health and wellbeing?”* The results indicated a mean displacement of 17%

## Total Social Value from the Social Value Calculator

When deadweight, attribution and displacement were considered for the base case, the total social value for clients experiencing better physical activity, social trust and overall health was £134,653. The total social value per participant was £3,458 (Table 7).

**Table 7: Deadweight, Attribution and Displacement**

Outcomes	Total social value	Deadweight	Attribution	Displacement	Total social value	Total social value per participant
Physical activity	£116,182	49% (x 0.51)	47% (x 0.53)	17% (x 0.83)	£26,065	£521 (n=50)
Social trust	£101,331	49% (x 0.51)	47% (x 0.53)	17% (x 0.83)	£22,734	£484 (n=47)
Good overall health	£382,679	49% (x 0.51)	47% (x 0.53)	17% (x 0.83)	£85,854	£2,453 (n=35)
					£134,653	£3,458



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# Mental Health Social Value Calculator

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Using the Mental Health Social Value Calculator, baseline and follow-up SWEMWBS scores for each client were recorded and values assigned (Trotter and Rallings Adams, 2017) (Table 8).

**Table 8: Monetary values for overall SWEMWBS scores**

Overall SWEMWBS Score	Full monetary value
7 - 14	£0
15-16	£9,639
17-18	£12,255
19-20	£17,561
21-22	£21,049
23-24	£22,944
25-26	£24,225
27-28	£24,877
29-30	£25,480
31-32	£25,856
33-34	£26,175
35	£26,793

## Applying Mental Health Social Value Calculator

Below are the steps for calculating the social value using SWEMWBS (Trotter and Rallings Adams, 2017):

1. Clients completed SWEMWBS questionnaires at baseline and follow-up.
2. Scores for all seven SWEMWBS questions were summed at each time point.
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 follow-up value for each participant.
6. A 27% standard deadweight percentage for health outcomes was subtracted to calculate the total social value for each participant (Dancer, 2014; Fujiwara, 2015).

Using the six steps outlined above, the total social value was £3,788 per client for ODO clients (Table 9).

Table 9: Social value ODO clients using Mental Health Social Value Calculator							
ID	Baseline (T1)	T1 Social Value	Follow-up (T2)	T2 Social Value	Difference (T2-T1)	Social Value	After Deadweight (27%)
1	26	£24,225	28	£24,877	2	£652	£476
2	27	£24,877	19	£17,561	-8	-£7,316	-£5,341
3	24	£22,944	24	£22,944	0	£0	£0
4	24	£22,944	21	£21,049	-3	-£1,895	-£1,383
5	7	0	19	£17,561	12	£17,561	£12,820
6	21	£21,049	21	£21,049	0	£0	£0
7	21	£21,049	26	£24,225	5	£3,176	£2,318
8	23	£22,944	25	£24,225	2	£1,281	£935
9	16	£9,639	22	£21,049	6	£11,410	£8,329
10	21	£21,049	19	£17,561	-2	-£3,488	-£2,546
11	19	£17,561	24	£22,944	5	£5,383	£3,930
12	18	£12,255	20	£17,561	2	£5,306	£3,873
13	7	0	12	£0	5	£0	£0
14	14	0	21	£21,049	7	£21,049	£15,366
15	22	£21,049	21	£21,049	-1	£0	£0
16	7	0	7	£0	0	£0	£0
17	20	£17,561	21	£21,049	1	£3,488	£2,546
18	11	0	26	£24,225	15	£24,225	£17,684
20	27	£24,877	22	£21,049	-5	-£3,828	-£2,794
21	23	£22,944	27	£24,877	4	£1,933	£1,411
22	16	£9,639	25	£24,225	9	£14,586	£10,648
23	20	£17,561	22	£21,049	2	£3,488	£2,546
24	21	£21,049	26	£24,225	5	£3,176	£2,318
25	18	£12,255	20	£17,561	2	£5,306	£3,873
26	17	£12,255	23	£22,944	6	£10,689	£7,803
27	15	£9,639	24	£22,944	9	£13,305	£9,713
28	18	£12,255	16	£9,639	-2	-£2,616	-£1,910
29	19	£17,561	26	£24,225	7	£6,664	£4,865
30	28	£24,877	25	£24,225	-3	-£652	-£476
31	22	£21,049	19	£17,561	-3	-£3,488	-£2,546
32	20	£17,561	19	£17,561	-1	£0	£0
33	28	£24,877	28	£24,877	0	£0	£0
34	21	£21,049	21	£21,049	0	£0	£0
35	21	£21,049	27	£24,877	6	£3,828	£2,794
36	22	£21,049	28	£24,877	6	£3,828	£2,794

ID	Baseline (T1)	T1 Social Value	Follow-up (T2)	T2 Social Value	Difference (T2-T1)	Social Value	After Deadweight (27%)
37	21	£21,049	21	£21,049	0	£0	£0
38	13	£0	21	£21,049	8	£21,049	£15,366
39	16	£9,639	18	£12,255	2	£2,616	£1,910
40	15	£9,639	28	£24,877	13	£15,238	£11,124
41	21	£21,049	23	£22,944	2	£1,895	£1,383
42	21	£21,049	24	£22,944	3	£1,895	£1,383
43	30	£25,480	31	£26,175	1	£695	£507
44	10	0	24	£22,944	14	£22,944	£16,749
45	13	0	23	£22,944	10	£22,944	£16,749
46	17	£12,255	26	£24,225	9	£11,970	£8,738
47	22	£21,049	24	£22,944	2	£1,895	£1,383
48	19	£17,561	29	£25,480	10	£7,919	£5,781
49	23	£22,944	28	£24,877	5	£1,933	£1,411
50	16	£9,639	20	£17,561	4	£7,922	£5,783
51	24	£22,944	24	£22,944	0	£0	£0
52	20	£17,561	26	£24,225	6	£6,664	£4,865
<b>Total</b>		<b>£802,550</b>		<b>£1,042,955</b>		<b>£264,630</b>	<b>£193,180</b>
<b>Total social value per client (n=51)</b>							<b>£3,788</b>

## NHS Health Service Resource Use

Baseline and follow-up questionnaires completed by clients measured mental health service resource use. Clients were asked about the number of mental health-related visits during two separate time periods - three months preceding and three-months during their ODO programme. The results showed that during the ODO programme, clients reported 5 more visits to psychiatrists, 2 less visits to psychologists and 6 less visits to mental health nurses. The total annual cost saving was -£1 per client (Table 10).

**Table 10: Health Service Resource Use by ODO clients**

Category	3-months before programme	3-months during programme	Difference in visits	Cost per visit*	Cost saving per 3-months	Cost saving per 12-months
Psychiatrist	14	19	5	£51/visit*	-£255	-£1020
Psychologist	38	36	-2	£58/visit*	£116	£464
Mental health nurse	79	73	-6	£21/visit*	£126	£504
<b>Total cost saving</b>					<b>-£13</b>	<b>-£52</b>
<b>Total cost saving per client (n=52)</b>						<b>-£1</b>



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# Calculating the SROI Ratio

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When the total social value per client was compared with the total cost per client, the SROI ratios ranged from £4.90 to £5.36 for every £1 invested (Table 11).

**Table 11: SROI Ratios**

	SROI Ratio (Social Value Calculator)	SROI Ratio (Mental Health Social Value Calculator)
Total social value per client	£3,458	£3,788
NHS cost savings per client	-£1	-£1
Total social value client	£3,457	£3,787
Total cost per client	£706	£706
SROI ratio	£4.90: £1	£5.36: £1

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## Discussion

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Wellbeing valuation was applied to quantify and monetise four significant client outcomes: mental wellbeing, physical activity, social trust and overall health. The decision to measure and value these four outcomes was piloted and co-produced by The Outdoor Partnership, the Bangor University research team, former ODO clients, and recommendations from a previous evaluation of The Outdoor Partnership (Mantell Gwynedd, 2019).

The results indicated a positive social return on investment with ratios ranging from £4.90 to £5.36 for every £1 invested. Although clients reported improvements in mental wellbeing, physical activity, social trust and overall health, the results indicated that the use of NHS mental health services did not decrease for ODO clients during 8-month study period. Nevertheless, the results are aligned with the goals of the Wellbeing of Future Generations Act (Wales) 2015 which calls for a 'Healthier Wales' where people's physical and mental wellbeing is maximised. Future studies could compare the social value generated by walking and climbing groups. However, in this study, the number of clients in the climbing group was too small (n=11) to obtain an accurate comparison.

## Strengths of this study

Previous studies have evaluated the SROI of outdoor walking interventions (Carrick and Lindhof, 2011; Paths for all, 2013), but this was the first SROI to use two different methods of wellbeing valuation to estimate the social value for clients who participated in 12-week outdoor walking or climbing intervention.

Second, the validity of the results was strengthened from quantitative and qualitative data collected from questionnaires (n=52) and interviews (n=6). Third, the social value ratios calculated in this study were generated from two separate value sets using the HACT Social Value Calculator and the HACT Mental Health Social Value Calculator. Both value sets are derived from wellbeing valuation, a consistent and robust method recommended in the HM Treasury Green Book (2022) for measuring social CBA.

## Limitations of this study

The reliability of the results may be uncertain due to the lack of a control group. As a result, other factors may have influenced how clients completed baseline and follow-up questionnaires. However, this limitation was mitigated by the 27% deadweight percentage applied when using the HACT Mental Health Social Value Calculator. Self-reporting percentages for deadweight (49%), attribution (47%) and displacement (17%) were also applied when using the HACT Social Value Calculator.

Another limitation 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 Social Value Calculator 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 value in the SVB 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).

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## Conclusion

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The results showed that the ODO programme generated positive social value ratios ranging from £4.90 to £5.36 for every £1 invested. Quantitative and qualitative data from baseline and follow-up questionnaires indicated that many ODO clients improved in mental wellbeing, physical activity, social trust, and overall health. Although ODO clients did not report a reduction in their use of NHS mental health services, future research could measure the mental health care resource use of clients over a longer period of time. If future findings show less use of mental health services by clients during and after their programme, then there is likelihood that ODO could generate cost-savings to the NHS.

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# About CHEME

## Centre for Health Economics and Medicines Evaluation

CHEME at Bangor University was founded in 2001 and is one of the leading health economics centres in the UK. CHEME is active across a range of health economic and medicines evaluation research activities, including public health economics and the health economics of psychosocial and other non-clinical interventions, led by Professor Rhiannon Tudor Edwards.

CHEME has a depth and breadth of expertise in economic evaluation methodologies, from evaluations alongside pan-UK clinical trials to SROI analysis of community-based projects (Edwards & Lawrence, 2021).

Previous CHEME SROI projects include:

- *Music in schools: Systema Cymru –Codi'r To (Winrow & Edwards, 2018)*
- *Art Activities for People Living with Dementia (Jones et al., 2020)*
- *Physical activity & social connection for People with Chronic Conditions (Jones et al., 2020)*
- *Home Exercise and Community Referral for People with Early Dementia (Hartfiel et al., 2022)*
- *Emotion Mind Dynamic Lifestyle Coaching (Makanjuola et al., 2022).*



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