

# Feel Good in the Forest: Social prescribing evaluation report



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# Executive Summary

## Introduction

The Active Forests Social Prescribing Pilot Project was part of a long-term partnership between Forestry England and Sport England and sat within the wider Active Forests Programme (O'Brien and Forster, 2023). The pilot called 'Feel Good in the Forest' (FGITF) started in 2019 and was due to run for 3 years, however it was extended by one year due to the impacts of the Covid-19 pandemic. The key aims of the pilot were to develop a supportive programme of physical activities for anyone looking to improve their health and wellbeing and to reduce barriers for those facing a range of health-related issues. The pilot ran at Chopwell Wood in the Northeast and Thames Chase Community Forest in the Southeast of England. There were two key aspects to the pilot: one focused on individuals who could join organised sessions and the other focused on existing groups with activities developed and organised for those groups. This report focuses on the evaluation of the pilot project and outlines the key results.

## Key results from the monitoring and evaluation

*'I was homeless and then I got referred to Crisis, I've been coming here 4 or 5 times now and it helps me sleep' (Male, Crisis group, Chopwell Wood)*

*'I love it, you just laugh so much, that's the thing that I always come away with from this group' (Female, Nordic Walking group, Thames Chase)*

There was a total of 6,183 visits during the Social Prescribing Pilot, with 4,707 visits to Chopwell Wood and 1,476 to Thames Chase.

353 participants got involved at both sites.

A range of activities were developed and provided during the pilot from Nordic walking, seated exercise to walking and progressive pedalling.

There were lower scores for participants, for levels of happiness, life satisfaction, and feelings associated with whether the things people do in their life are worthwhile, than the national average for the England population. This is to be expected as Social Prescribing projects aim to reach these types of audiences.

In terms of mental health participants in the pilot experienced reduced mental wellbeing compared to a United Kingdom population sample. As outlined above this is to be expected and one of the aims of the FGITF pilot was to improve participants wellbeing. Respondents to the participant survey, follow-on survey, and group evaluation forms were very satisfied that the following goals had been met for participants: socially interacting, reducing social isolation, enjoying nature, contributing to mental wellbeing, and being physically active.

The Pilot participants from Chopwell Wood tended to be older, were more likely to have an illness or impairment and were from more deprived areas than the participants of the wider Active Forests Programme. There are too few results from Thames Chase to comment on this.

## Conclusions

The Feel Good in the Forest pilot tended to reach people who were facing a range of health-related problems and reduced wellbeing which is particularly important for Green Social Prescribing projects as these are the key audiences these projects are trying to reach. The Feel Good in the Forest pilot was impacted by the Covid-19 pandemic and by the lack of an Active Forest Coordinator at Thames Chase Community Forest for a period of time during the project. There were difficulties with gathering the quantitative data due to the Covid-19 pandemic but also due to the issues and problems participants faced. However, the qualitative data was easier to gather with participants happy to share their stories. This data does provides a rich description of how the pilot impacted different participants in many ways particularly in terms of mental wellbeing, social connections, self-confidence, and self-esteem.

# 1 Introduction

Social prescribing connects people to non-medical support to address issues they may face that cannot be treated by medicine alone. This includes issues such as loneliness, social isolation, mental health problems, and physical inactivity. Social prescribing link workers have been employed by the National Health Service, and social and health care services can refer people to the link worker who helps to produce a personalised care and support plan with the referred person. The referred person will be given ideas and options of groups and activities that they can participate in that will improve their health and wellbeing. Figure 1 shows a standard model of social prescribing developed by NHS England to show the key elements that need to be put in place for effective prescribing to take place. This type of approach when it takes place in nature is often called green social prescribing. Individuals who see information and find out about social prescribing can also self-refer themselves to these activities and contact the provider of the activities to check if they can participate.





**Figure 1.** Standard model of social prescribing.

## 1.1 Social prescribing project

The Social Prescribing pilot project developed by Forestry England was called 'Feel Good in the Forest' (FGITF). The pilot started in 2019 and was initially due to run for three years ending in 2022. However, a key challenge that the pilot faced was the impact of the Covid-19 pandemic, as the pilot had to stop during lockdowns when the forests were not staffed, and facilities and car parks were closed.

Activities started again in 2021 but the re-opening and starting of the activities had to be undertaken slowly and sensitively to ensure social distancing was in place to reduce the potential spread of the disease. The impact and disruption of Covid-19

on the running of the pilot should not be underestimated. Therefore, the pilot was extended by one year until 2023.

The key aim of the pilot was to:

Identify a delivery model that addressed the barriers to participation in forest-based activities, engage inactive and fairly active people with mild-moderate health conditions, deliver health and wellbeing outcomes and align with the evolving social prescribing services/sector.

The objectives were to:

- Implement a programme of activities and process for referral suitable for local social prescribing services and their service users.
- Establish relationships with local social prescribing services or referral agencies and increase awareness of activities available for their service users.
- Deliver a programme of activities over 3 years which delivers a wellbeing benefit to participants (improved engagement in physical activity).
- Create a programme which can be funded after the end of the pilot.

An Active Forest Coordinator (AFC) based at each site undertook insight work, developed knowledge of existing visitors, and reached out to identify new groups and organisations that could benefit from the pilot. Through these activities the AFCs developed new activity opportunities for a range of people and groups that faced specific health related problems. The AFCs also worked with referral agents and activity group leaders as well as volunteers to deliver the pilot. The AFC at Thames Chase left for another post during the pilot and there was a period from May-December 2022 when there was no AFC at the site which had an impact on activities being provided, on the qualitative and quantitative data gathered, and the numbers of participants able to engage with the pilot.

Existing evidence highlights a very wide range of benefits for people that connect with nature and that social prescribing can positively impact people's happiness and wellbeing via connection to nature and reducing social isolation, as well as

improving mental wellbeing (Leavell et al. 2019; National Academy for Social Prescribing, Undated).

The evaluation questions for the pilot included:

1. How many took part in the social prescribing activities?
2. Is there evidence of participants sustaining or changing their physical activity levels?
3. What are the motivations and benefits of undertaking the social prescribing activities and the contribution of the forest environment to this?
4. What are the impacts on mental wellbeing?

### 1.1.1 Activities provided as part of FGITF

The tables below show the activities provided and organisations engaged at each site (Table 1 and 2).

**Table 1.** Activities provided as part of FGITF at each site

| Site          | Activity              | Frequency | Location                                   | Audience      |
|---------------|-----------------------|-----------|--|---------------|
| Chopwell Wood | Progressive pedalling | Weekly    | Chopwell                                   | All inclusive |
| Chopwell Wood | Woodland warblers     | Weekly    | Chopwell                                   | All inclusive |
| Chopwell Wood | Seated exercise       | Weekly    | Chopwell                                   | All inclusive |
| Chopwell Wood | Evergreens            | Weekly    | Chopwell                                   | All inclusive |
| Chopwell Wood | Health walk           | Weekly    | Chopwell                                   | All inclusive |
| Chopwell Wood | Archery               | Weekly    | Chopwell                                   | All inclusive |
| Chopwell Wood | Reading Ramblers      | Weekly    | Chopwell                                   | All inclusive |
| Chopwell Wood | Walking football      | Weekly    | Chopwell                                   | All inclusive |
| Thames Chase  | Buggy walk            | Weekly    | Ingrebourne Hill                           | New parents   |
| Thames Chase  | Wellbeing walk        | Weekly    | Thames Chase Forest Centre and Broadfields | All inclusive |

**Table 2.** Organisations engaged as part of FGITF at each site

| <b>Site</b>   | <b>Organisation</b>   | <b>Remit</b>  | <b>Activities provided</b>  |
|---------------|-----------------------|---|---|
| Chopwell Wood | CRISIS                | Participants added as part of their support programme           | Archery, bushcraft, cycling, orienteering                               |
| Chopwell Wood | Mental Health concern | Participants invited from their group                           | Archery, bushcraft, cycling, orienteering and health walk               |
| Chopwell Wood | Recovery Connections  | Participants invited as part of their support programme         | Archery, bushcraft, cycling, orienteering                               |
| Chopwell Wood | NHS CNTW              | Monthly staff wellbeing meetings for any NHS staff in the trust | Archery, bushcraft, cycling, orienteering, Alpaca walking, health walks |
| Chopwell Wood | Young Women's project | Participants invited from their group                           | Archery, bushcraft, cycling, orienteering, team building                |

| Site          | Organisation                      | Remit  | Activities provided  |
|---------------|-----------------------------------|--|--|
| Chopwell Wood | Gateshead Older people's assembly | Participants invited from their various activity groups across Gateshead | Archery, bushcraft, cycling, orienteering, team building                                       |
| Chopwell Wood | Best of Bensham Community group   | Participants invited from their group                                    | Archery, bushcraft, orienteering   |
| Chopwell Wood | RECOCO                            | Participants invited as part of their support programme                  | Archery, bushcraft, cycling, orienteering  |
| Chopwell Wood | Egberts house                     | Community link worker facility providing support for families            | Archery, bushcraft, cycling, orienteering, treasure hunt, family themed walks (Gruffalo trail) |
| Thames Chase  | Age UK - Barking and Dagenham     | Participants invited to activities from their group Di's Diamond's       | Yoga and Nordic walking  |
| Thames Chase  | Thames Chase Trust                | Partner organisation at Thames Chase Forest Centre                       | Wellbeing walks  |

| Site         | Organisation                                     | Remit                       | Activities provided          |
|--------------|--|-----------------------------|------------------------------|
| Thames Chase | Rainham Children's Centre                        |                             | Buggy walk                   |
| Thames Chase | Go Girls Academy                                 | Mental Health youth workers |                              |
| Thames Chase | Havering Mind                                    |                             |                              |
| Thames Chase | Havering and Redbridge University Hospital Trust | NHS staff wellbeing         | Bespoke staff wellbeing days |

## 2 Methodology

A mixed methodology was employed to monitor and evaluate the social prescribing pilot, this combined detailed quantitative and qualitative data gathering (ask to see associated dashboard for quantitative methodology).

### 2.1 Qualitative and quantitative data gathering

Figure 2 shows the key methods for gathering data for the evaluation including:

1. Individual attendance data collected at both forest sites.
2. Throughput data: provided by Active Forest Coordinators on group visits by activity and number of visits.
3. Individual participant survey data (n=70): a short survey collected on paper or via tablet by Active Forest Coordinators (AFC) providing details on activities undertaken, physical activity level and demographics. In addition, follow-on surveys were conducted three months after the initial survey, but response numbers were too small for valid analysis (n=5).
4. Group participant survey data (n=33): like the above but collected for members of specific groups and also including the Office for National Statistics four (ONS4) personal wellbeing questions and the Short Warwick Edinburgh Mental Wellbeing (SWEMWBS) questions. In addition, follow-on surveys were conducted three months after the initial survey, but again response numbers were too small for valid analysis (n=3).
5. Group booking form (n=14): a separate survey of groups that included a follow up three months later to assess whether goals of the Social Prescribing Pilot had been met.
6. In situ participant observations made when undertaking physical activities with participants to explore interactions, leader input and understand how the activity was delivered.
7. Focus groups and interviews held with participants, volunteers, referral agents and activity providers to explore motivations, benefits, and enablers (n=52).





**Figure 2.** Summary of mixed methodology used for monitoring and evaluating the Social Prescribing Pilot Project.

The ONS4 personal wellbeing questions and the Short Warwick Edinburgh Mental Wellbeing Scale questions were added to the group surveys. This was to test out their use within the pilot. The data can be compared to national samples as these questions are widely used, and this was the intention for this evaluation.

### 2.1.1 Qualitative data gathering

Focus groups were undertaken with 5 groups of participants who joined the social prescribing activities and interviews were undertaken with a further 2 people, thirty-five people in total got involved including in the participant research via two walking groups, a Nordic Walking group, seated exercise group and a Crisis group. Focus groups were also run with social prescribing referral agents, a Forestry England volunteer group, and a virtual focus group with activity leaders and an activity organiser as well as an interview with an AFC (n=17). In total 52 people were involved in the qualitative research in total (Table 3).

**Table 3.** Qualitative data gathering focus groups/interviews.

| <b>Forest</b> | <b>Activity</b>                | <b>Who</b>                      | <b>Year</b> |
|---------------|--------------------------------|---------------------------------|-------------|
| Chopwell      | Walking group                  | 5 men, 4 women                  | 2021        |
| Chopwell      | Referral agents meeting        | Referral agents 5 women, 1 man  | 2022        |
| Chopwell      | Volunteer activity             | Volunteers 2 men, 3 women       | 2022        |
| Chopwell      | Active Forest Coordinator      | 1 woman                         | 2022        |
| Chopwell      | Seated exercise group          | 5 women, 1 man                  | 2022        |
| Chopwell      | Crisis group                   | 8 men, 1 woman, 2 group leaders | 2022        |
| Thames Chase  | Walking group                  | 4 women, 1 man                  | 2021        |
| NA            | Interviews                     | 1 man, 1 woman                  | NA          |
| Thames Chase  | Activity leaders and organiser | 3 women                         | 2023        |

Parent Title (Source Title property)

| Forest       | Activity             | Who  | Year |
|--------------|----------------------|--|------|
| Thames Chase | Nordic Walking group | 1 man, 3 women, walk leader and group leader | 2023 |

### 2.1.2 Quantitative data collation and analysis

Data were analysed using R (R core team, 2022), with the tidy verse suite of packages (Wickham et al., 2019) used to clean (Wickham et al., 2022) and visualise (Wickham, 2016) the data. The majority of the data had small sample sizes and were presented using descriptive statistics. Quality adjusted life year benefits were calculated based on individual attendance data for specific activities. These could be calculated per person as attendance, frequency, duration and metabolic equivalent of task (MET) values were known. QALY calculations follow the methodology of [Moseley et al., 2018](#), where 30 minutes of moderate-intensity physical activity undertaken each week over one year would result in an additional 0.010677 QALYs per individual, per year for the general adult population with an annual cost benefit of 20k GBP per QALY. Cumulative benefits were calculated per person over the time period of activities based on their absence/presence each week/fortnight. To allow across-activity comparisons, weekly QALY benefits were calculated based on the cumulative total divided by date of last attendance minus date of first attendance multiplied by seven for a weekly QALY benefit estimate (GBP). Weekly QALY benefits were analysed via a simple linear regression model, with square-root transformed (to normalise) weekly QALY benefits used as the response and the combination of forest site and activity as predictor. Analysis of variance (Fox and Weisberg, 2019) was used to test for statistical significance of predictors, with estimated marginal means (Lenth, 2022) calculated where relevant.

Here, activity times below 30 minutes were also included in the calculation, and the maximum exercise benefit was capped at 0.10677 QALYs (equivalent to maximum of 300 minutes per week). For annual cost benefits, a figure of 20K GBP per person is used, therefore this was reduced to 5K GBP per quarter. Regression included linear decrease in weighting for QALY values above 250 GBP per quarter, to provide more conservative upper estimates.

# 3 Results

## 3.1 Qualitative Results

This section provides results from the qualitative focus groups with participants involved in FGITF. Figure 3 outlines the key benefits that participants talked about in the focus groups.



**Figure 3.** Key wellbeing benefits highlighted by participants in FGITF.

### 3.1.1 Motivations for getting involved

FGITF is aimed at those experiencing mild to moderate physical or mental health conditions and/or social isolation and these issues were linked to why people engaged with the programme. Key 'life events', such as retirement, life-changing illnesses (e.g. stroke, partial sight) or diagnosis of health conditions (e.g. diabetes, Parkinson's, osteoarthritis), acted as triggers for many participants to get involved and start exercising more regularly. Others were experiencing long-term social isolation exacerbated by the Covid-19 lockdowns and were looking for an opportunity to increase social contact and make friends while spending time outdoors. Bereavement and respite from caring responsibilities were also other reasons mentioned for joining the programme.

*'I was a carer for my husband and my mum and dad... So I was sort of on-call all the time but now there are certain times, if I'm coming here, or to the gym, that I've carved out that time. I suppose I've learnt to say no for half an hour. I've enjoyed it.'* (Female, walking group, Thames Chase)

Some participants had been referred to the programme by health workers. Others had self-referred after being recommended to join activities by friends or neighbours; or specific groups got involved as they thought it would benefit their members, some people also saw the activities advertised. Members of the seated exercise class at Chopwell Wood discussed previous attendees they believed were referred to the programme and who had not continued with the class; they felt this was because they were not self-motivated. Dedicated activity days were run specifically for members of existing support groups and their leaders, including a charity for people experiencing homelessness to give them a taster of what to expect.

The social aspect of the groups often motivated participants to participate and continue attending.

*'It's other people, as when Covid started I wasn't meeting people and that's why I wanted to come and start meeting people' (Female, walking group, Chopwell Wood)*

*'Since my stroke it's getting out and meeting people' (Male, walking group, Chopwell Wood)*

The Covid-19 pandemic contributed to some people's social isolation and getting outdoors then became much more important for them. Most of the activities that participants engaged with ended with them having a drink together and chat afterwards and this helped people to get to know each other and bond together as a group. The combination of activity and a drink and chat added to people's whole experience and helped motivate people to return as they got to know the other people in the group.

### 3.1.2 Benefits of involvement

There were a wide range of benefits participants outlined in the focus groups that participants gained from engaging with FGITF.

#### **Physical health**

Participating in the outdoor activities was seen as improving physical health and fitness. Those in the Nordic Walking group talked about the importance of posture and gait and how they had to concentrate when using their poles:

*'It was a little bit difficult because you have to really concentrate and if you're having a laugh and talking, you forget yourself'. (Female, Nordic Walking, Thames Chase)*

*'Totally. It's improved, even when I walk to the high street, I'm consciously thinking about my posture and about straightening my back' (Female, Nordic Walking, Thames Chase)*

One of the participants in the Crisis group talked about how the activities helped to improve his sleep, which plays an important role in people's wellbeing (Mental Health Foundation, 2011).

*'I was homeless and then I got referred to Crisis, I've been coming here 4 or 5 times now and it helps me sleep. Every time I come here I tend to get a good night's sleep.'* (Male, Crisis group, Chopwell Wood)

Others talked about feeling fitter and starting to use muscles that they had not used for a while. The physical, mental and social benefits are often closely linked (Ohrnberger et al. 2017), and some felt the social aspect of the group sessions facilitated the physical health aspect by as one person put it: *'making the exercise less daunting'*.

Participants from the Crisis group as well as many others preferred exercising outdoors than in a gym, because of the fresh air in the forest and because nobody was watching them exercise, they therefore felt the forest was a non-judgemental and safe space for exercise.

## **Mental health**

In general, though, mental wellbeing came out as a particularly strong benefit for most of the participants. Participants talked about feeling no pressure from getting involved in the activities. They also highlighted the social elements and how this had an impact on mental wellbeing as outlined in these quotes:

*'I think it's been more beneficial, mentally, to me, than physically...because I'm on my own, I come here and I meet people and it, the bonus is, I'm doing exercise.'* (Female, seated exercise, Chopwell Wood)

*'For me its mentally refreshing, you are not on your own, you get out and do different things'* (Male, walking group, Chopwell Wood)



Feeling relaxed, having fun and laughing were ways in which people's mental wellbeing was improved and often meant people went home happier than when they had arrived.

*'I love it, you just laugh so much, that's the thing that I always come away with from this group' (Female, Nordic Walking group, Thames Chase)*

Participation could also lift people's mood when their day had not started well:

*'This morning, I had a bit of a bad morning but since I've been here everything's changed. Because I got the bus and it was pouring down and I thought oh no it's seen me coming. But once I got here and walked around I just forgot everything that went on this morning and think why did I have a bad morning – it clears my head' (Male, walking group, Chopwell Wood)*

It could also help them when they were facing difficult times in key areas of their lives.

*'...I was on a downer, a bad slope I really needed a pickup because of the work business. I was in a dark place, but I'm starting to pick up' (Male, walking group, Thames Chase)*

Improving confidence and self-esteem plays an important role in mental wellbeing (NHS, 2023) and for those in the Crisis group who have been homeless or addicted to drugs and alcohol this could be especially important:

*'From quite a bad place I was in. Like self-confidence, self-esteem, just doing something worthwhile a bit of fresh air, it's all good. Good facilities, good leaders, from my point of view Crisis they were the only ones that helped me in where I was at the time. I was homeless for 6 months and Council didn't want to know and these guys were the only ones that give us any sort of help' (Male, Crisis group, Chopwell Wood)*

For those who came regularly and got to know the activity leaders and other participants they gained a sense that people cared about whether they turned up and how they got on at the sessions.

*'And having someone who cares about you and how you're performing, how you're feeling, that is vital as well, it really helps you' (Female, Nordic Walking group, Thames Chase)*

*'I got a text from the AFC one week when I didn't come along and that meant so much. Just a text saying, 'are you alright we've missed you', I think that is important' (Female, walking group, Chopwell Wood)*

### **Social health**

Although some participants had already visited the woodland sites previously, they enjoyed the opportunity for social connection and structure offered by regular, organised and led classes. Participants enjoyed the sense of community and the opportunity to socialise with the group after each activity had finished.

*'One of the things I like about this walk it you come back sit down have a biscuit and a bit of a chat and that makes a big difference.'* (Male, walking group, Chopwell Wood)

For members of the homeless charity Crisis, the activities also provided an opportunity to mix with people outside their familiar group (e.g. the public, instructors).

*'Just seeing people from different backgrounds as well, brings about a lot of confidence in people, it brings out the best in people, it really does.'* (Male group leader, Crisis group, Chopwell Wood)

Participants often had things in common, for example they were at a similar life stage, they were interested in meeting new people, and they enjoyed doing physical activity with others. Also, for particular groups of people facing significant challenges having things in common could be especially important.

*'Yes because I feel like especially if you've got bad mental health because of past experience and stuff like that. You can feel a bit isolated like even around your own family because some of them just don't understand what you went through' (Male, Crisis group, Chopwell Wood)*

Some could also be quite or very isolated, especially since the Covid-19 pandemic, and welcomed getting out:

*'If I had not come, I would have been just sitting in and watching the telly' (Male, walking group, Chopwell Wood)*

*'Well, for me, I mean socially as well, because I'm quite, I live on my own, I'm quite isolated and it really, Covid was a bit of a nightmare and I've still not really recovered' (Female, seated exercise, Chopwell Wood)*

### **Forest environment**

Participants enjoyed the calming effect of the forest environment: the quietness, the greenness and the wildlife. For the Crisis group in particular, the forest was seen to offer a break from the stresses of everyday life and a safe environment away from distractions, while engaging the senses and providing something to focus on.

*'It's a very mindful place in that like all your senses are stimulated, it's the smells, it's the sounds, it's the sights, it's the wildlife.'* (Male, Crisis group, Chopwell Wood)

*'It's like if I go to the seaside, I can stare at the sea because that's calming... because it's nature... and nobody's got any control over it and you're in here, and you're just, even when it's windy, there's different sounds... and if it's raining, you hear different birds' (Female, seated exercise, Chopwell Wood)*

The activities offered an opportunity to learn about and connect with nature. Some participants noticed different things depending on the weather or season, while those who had visited before started to notice new things:

*'When I used to come out and drive through the lanes, I didn't really pay that much attention, but you do look at things, the birds and the different trees, and you notice things more, I think.'* (Female, walking group, Thames Chase)

*'I've come into the forest a bit more in the last year and yeah, for me, I, I've started to look more at the trees, when I've been walking and, you know, that avenue, where all the trees are labelled (Female, seated exercise, Chopwell Wood)*

*'It's a different atmosphere every week isn't it, depending on the weather and the time of year'* (Female, walking group, Chopwell Wood)

Being in nature and in the forest can also link to spiritual and reflective feelings as it can link to people's feelings of their place in the world.

*'It just reminds me that you're part of the whole system and you know this idea that sometimes I get quite emotional in here [the forest] just because it's something bigger than me and ... we might be part of it (Female, seated exercise, Chopwell Wood)*

### **Learning, regular routine and a safe environment**

As outlined above some participants talked about learning more about the natural environment or about trees from their visits. They also talked about learning more about correct ways to hold themselves when exercising or how to improve their exercise technique. There were also references to learning more about what they were capable of in terms of being physically active, particularly for those who not particularly active and had concerns about how much they could or should do.

The regular routine of weekly or monthly activities helped to provide structure to people's week or month. This can be particularly important especially since Covid-19 and the lockdowns and restrictions that people faced, and it is important for those who have become isolated or somewhat removed from society.

The forest sites were seen as safe spaces, places where people felt they were not judged – whether they were homeless, a substance addict or socially isolated. The forests were places where people felt away from stress and strains of everyday life or everyday temptations.

Participants also talked about feeling cared for by the AFCs, activity leaders and other people in their groups and this helped motivate them to continue being involved and improved their self-esteem.

### 3.1.3 Behaviour change

Some of the participants were inspired to become more active or try new activities after participating in FGITF. Those in the seated exercise class were motivated to move on and do some light walking or gardening activities. While two people from the same class talked about how being in the forest inspired them to reconnect with nature through other events and educational apps. One person described becoming more flexible and mobile after regularly undertaking Nordic walking sessions at Thames Chase and this led her to being able to walk more. She also used her Nordic walking poles sometimes when out shopping. A few people talked about losing weight after they became more active, and one person decided to join a gym after getting back into physical activity via the walking group at Thames Chase. Another started volunteering at Chopwell Wood after joining the FGITF programme. One man at Chopwell who joined the walking group was in his late eighties but the walks inspired him to join a Sunday walking group as well.

It is also important to note that sustaining physical activity behaviours are important and the FGITF activities allowed participants to do that.

Participants also described sometimes coming back to activities they had not undertaken for a long time; the organised sessions could make all the difference in terms of encouraging people to return to activities they have previously undertaken.

*'I mean for me we went mountain biking and I hadn't been on one for years until I came, so they got me back on a bike. For somebody who used to do a hell of a lot of miles and then just to stop, it got me involved, back with it. Hugely beneficial for me' (Male, Crisis group, Chopwell Wood)*

The excerpt below outlines a case study example of how Reading for Wellbeing and FGITF combined to make a significant difference to one man's life and changed his behaviour and this has been outlined on the (Library On website)[#<https://libraryon.org/books-and-more/reading-for-wellbeing-at-the-library>].

#### Ian's story

*'I always loved reading, and cherished books, but I hadn't visited a library for several years. My mum was ill, and my life had been consumed with looking after her. After she passed away, I was in a dark place. I couldn't really see any future, and I was living in fear. With the pandemic as well, I found myself getting all my shopping and things delivered and I just lost touch with people. I know the date my life changed: it was 25th August 2021. Patricia a community link worker, was kind enough to refer me to a one-day event as part of the Reading for Wellbeing Programme pioneered by author Ann Cleeves.*

*It was a big deal for me to leave my house and go to the event – I hadn't gone out in 18 months. It was a nice event and to my surprise I ended up on the local TV news, because they were doing a story about the project. I went to join a reading group at Blaydon Library.*

*Then I was lucky enough to join the Reading Ramblers at Chopwell Wood which is my favourite place. The library loans you a tablet and headphone, you download an audiobook and listened while you walk through the beautiful scenery. Then we all stop and have a cup of tea and talk about what we listened to. It's so good for stress and anxiety. We saw a baby deer once!*

*My life looks very different now – I wake up every day and I have a purpose. I volunteer with Gateshead Carers and with the Community Links Service. My calendar has something in it every day. There must be other people who are in the same situation I was in and it's so important we find them and offer them the same lifeline.*

*I've reconnected with the world at my own pace, and I owe it to some very kind strangers who helped me reconnect with the library, reading and people.'*

### 3.1.4 Supporting and enabling participation

The free activities at both sites were mentioned as facilitating people's participation. Free sessions could be very useful when trying to encourage behaviour change in terms of increasing people's physical activity levels. Some of the participants would struggle to pay for sessions that they were enjoying as part of the social prescribing pilot. Because of limited income, some such as the Crisis group members were only able to visit Chopwell Wood during the monthly organised session when the charity provided a minibus transport.

*'No because I feel like most people that are kind of like in our situations are very limited to the stuff that we can do. You know like, some people are on Universal credit for example you might be worrying about how much money you've got left, simply going for a gym membership' (Male, Crisis group, Chopwell Wood)*

Participants who may have lacked confidence to visit the woodlands on their own were also reassured by the presence of an activity leader and the organised nature of the activities. Both activity leaders and AFCs supported and encouraged participants to get involved and recognise their own progress, which was important for developing self-confidence, while the friendly and non-judgemental atmosphere of activities helped participants to feel welcome and at ease.

Participants enjoyed the relaxed style of teaching. Seated exercise participants appreciated how the activity leader allowed them to follow the exercises at their own pace without pushing them. Furthermore, participants talked about the opportunity to learn about posture, gait, and understanding the right positions for their exercise.

The range of activities on offer through FGITF also provide different opportunities for people to engage and find something that suited them. Some of the older participants also outlined the importance of the facilities on site from good paths, having a variety of paths and places to go to in the woods but also, they outlined that a toilet is essential for them as well.

Having regular activities once a week also provided structure to people's day and week, particularly for those who were retired.

*'I think you need structure in your day particularly if you are on you own'  
(Female, walking group, Thames Chase)*

The attractive forest environments were also a draw for participants who talked about seeing wildlife and enjoying the seasons and beauty of the forests; these contributed to people wanting to return and continue their participation.

### 3.1.5 Activity leaders, referral agents and volunteers: Key themes

This section outlines some of the key issues and themes raised by activity leaders, referral agents and volunteers.

#### **Understanding the needs of potential participants**

Organisational representatives, activity leaders and referral agents all need to understand the requirements of their clients and how engaging in green social prescribing could benefit them. An Age UK representative who organises a social group within Age UK called Di's Diamonds has encouraged members to participate in Nordic walking and Yoga at Thames Chase but also highlighted that they faced a range of challenges.



*'The main thing, you'd have to meet the members to know what I mean. But these people don't do any exercise, they haven't done anything, they might walk to an event but that would be a struggle. There are various issues, and they are what the occupational therapist said are deconditioned, just from Covid mainly, with a fear and not wanting to go out'. (Age UK Di's Diamonds organiser, Thames Chase)*

A referral agent talked about how her patients were looking for gentle exercise as many of them would not go to a gym or exercise class whereas wellbeing in the forest was seen as non-threatening and the fact that someone leads the activity and supports them gives people confidence.

*'...reconnecting in nature in a safe space in a group of people who there's going to be no judgement, it's just a safe well-being space for them to be able to have what they would consider normal interactions and just be able to enjoy themselves in a nice environment' (Referral agent, Chopwell Wood)*

### **Usefulness of taster sessions and free sessions**

Providing potential participants with the opportunity to take part in a taster session can be important so that they can get an idea of how the activity is delivered and see the forest environment.

*'...with the Nordic walking, a lot of people think it is not for them, it's not their thing, it's too difficult... they sort of write it off before they try it. But actually, the environment that we do it in, and just the amount of different things we cover encompasses so many different aspects' (Nordic walking leader, Thames Chase)*

Another key advantage of the social prescribing sessions is the fact that they are free for participants. This was felt to be very important by the referral agents who talked about the current economic crisis and how paying for sessions could be beyond the reach of some of the people being referred or self-referring.

## Seeing and understanding the forest environment

Referral agents from organisations including the local council, National Health Service, and addiction recovery charities attend quarterly meetings with the AFC on site at Chopwell Wood to enable them to see and experience the woods and activities before signposting potential participants to the FGITF programme. The meetings are also an opportunity for networking and discussing ideas about other projects. The activity leaders also need to visit the sites to explore how the activity they lead can be delivered and where they can go on site to maximise the activity and benefit to participants:

*'We look at different types of trees, the different colours, the way it's changing. Even in yoga looking out of the room [yoga is delivered indoors mainly at Thames Chase] looking outside, you can just get a beautiful view' (Activity leader, Thames Chase)*

### 3.1.6 Relationship with the AFCs

Referral agents encourage potential participants to contact the AFC directly but can contact the AFC on their behalf, for example if the participant suffers from anxiety or low self-confidence. Referral agents recognised the value of working with Forestry England, which they saw as a 'reputable organisation' with very relevant expertise.

Volunteers are managed by the AFC, and on their weekly volunteer days they help to support the delivery of the FGITF programme at Chopwell Wood, for example by building sports infrastructure, or training as volunteer activity leader. While the AFC has only been in post since 2019, some of the volunteers have gained significant experience of the site and its management while volunteering at Chopwell for over 20 years. This has led to occasional disagreement over how the site should be managed. However, the relationship between volunteers and AFC is good-humoured and full of 'banter', and volunteers like the way the current non-hierarchical management structure made them feel part of the team, rather than

the AFC being 'the boss'. They got on well with the wider site maintenance team and highlighted how their 'green uniform' makes them feel valued and included.

### 3.1.7 Observed benefits for participants

Referral agents follow up with participants after they join an activity, sometimes conducting ongoing progress reviews, to identify changes in their behaviour. Positive changes include meeting new people, trying new activities within the FGITF programme on their own initiative and bringing friends or family to visit the woodland outside the organised activities. Participants also demonstrated increased confidence, in both building social connections and recognising their own skills:

*'We had a lot of people recognising what different skills they had. Every time we've had a trip they've got back and they were saying, actually, I was really good at this. Whether it was the archery or doing the fires... We do have people then really noticing that they've got skills in different places and talking about it and feeling proud of themselves that they've achieved different things.'* (Referral agent, Chopwell Wood)

The calming forest environment was felt to promote mental wellbeing. Referral agents working in addiction recovery highlighted the relative 'safety' of a quiet forest environment, and pointed out that a potential rollout of FGITF to busier 'destination' sites may be off-putting for some:

*'It is massive for the people that we support because other trips there will be pubs there and we're passing various different places...When you come to a place like this, you know there are no triggers there and you know they're completely safe.'* (Referral agent, Chopwell Wood)

The opportunity to try something new and interact with others was also observed, as some people become very isolated.

*'I think the patients that we've referred really benefit from it. The chance to try new things and be out in the fresh air and particularly for their mental*

*health it's so peaceful and it really does help. I think somebody just having that opportunity to interact with somebody, not necessarily make friends, but just interact with somebody else. Sometimes people can sit all day on their own and never speak to a soul. It's a really good opportunity to interact...'*  
(Referral agent, Chopwell Wood)

Activity leaders also noticed change in participants:

*'One lady said to me she used to get the bus to the shops and wouldn't go alone. She now goes by herself, she walks to the shops and gets the bus back and that's huge, self-esteem'* (Age UK organiser, Thames Chase)

A crisis group leader highlighted the importance of participants having the opportunity to mix with people from different backgrounds and this could help to build their confidence:

*'Just seeing people from different backgrounds as well, brings about a lot of confidence in people, it brings out the best in people it really does. The same with the environment it really does make the best out of all our members'*  
(Crisis group leader, Chopwell Wood)

Because of their long-term attendance on site, volunteers were also able to notice FGITF participants 'bloom and grow' over time as they built self-confidence, as well as some participants going on to join volunteering sessions. They emphasised the therapeutic effects of exercise in the forest environment:

*'Half an hour walking through the wood is worth an hour on a psychiatrist's bench.'* (Female volunteer, Chopwell Wood)

### **Supporting and enabling participation**

Referral agents felt that offering a variety of free activities in one place helped encourage participation. The activities were also seen as less intimidating than a gym or conventional exercise class.

Activity leaders highlighted the importance of trained people leading activities so that participants exercised in the right way and only undertook activity that they could do, but also helped them to consider how they could improve.

Volunteers felt people were more likely to join organised group activities as it meant they did not have to plan a route through the woods themselves, particularly if the wood was unfamiliar to them or if they were concerned about getting lost.

### 3.1.8 Active Forests Coordinators: Key themes

As the AFC post at Thames Chase was vacant at the time of conducting interviews, only the AFC at Chopwell Woods was interviewed.

#### **Developing opportunities**

The AFC works in partnership with local organisations to develop new activities for the programme. This has included working with the local library to set up a walking book club at Chopwell Wood, as well as working with local charities and care homes to develop bespoke activity days for their members. Although volunteers are being trained to run the walking group at Chopwell Wood, the AFC has recruited 'knowledgeable' and 'adaptable' external activity leaders for specialist activities such as bushcraft. The AFC highlighted the importance of finding the right activity leader who understands the programme, in particular the importance of the social element for participants; there had been one instance of an activity leader who participants felt was too focused on the physical fitness element and did not want to engage in conversation.

*'You've got to have someone that is personable and yeah, wants to know the participants as people as well, not just 'I'm there for an hour then I'm leaving' type thing' (Female AFC, Chopwell Wood)*

*'It's kind of really important to get the right activity leader for the activity that we're doing because I think they make or break the activity. It doesn't*

*matter what you're doing, I think as long as you've got the right person that's leading it, it makes a big, big difference.'* (Female AFC, Chopwell Wood)

### **Publicising activities**

The AFC was hoping to reach a diverse range of participants, including care home residents, refugee women, older people, people with health problems and homeless charities. The AFC promoted the activities online and on social media, as well as contacting local organisations, charities and link workers to tell them about the activities on offer. Link workers refer patients to the programme by putting them in direct contact with the AFC, while charities such as Crisis encourage their members to attend bespoke activity days. Once participants have started attending, social connection and new friendships motivate participants to continue attending. However, the AFC described it as a challenge to promote the activities to the 'right audience'. Transport was seen as the biggest barrier to attracting participants, as many are from deprived communities with low levels of car ownership.

### **Observed benefits for participants**

The AFC acts as a point of contact for participants, checking in on them if they do not turn up to a session to make sure they are alright. Building ongoing relationships with participants allows them to observe the positive effects of the programme on participants. For example, the AFC found it rewarding to see participants' confidence increasing over time:

*'It is lovely to see. As well as the physical improvement, I think seeing the difference in them in their personal lives is probably more rewarding to us than that they can walk a little bit quicker.'* (Female AFC, Chopwell Wood)

The AFC reinforced the message from participants that the social aspect was as important as the physical activity element of the programme:

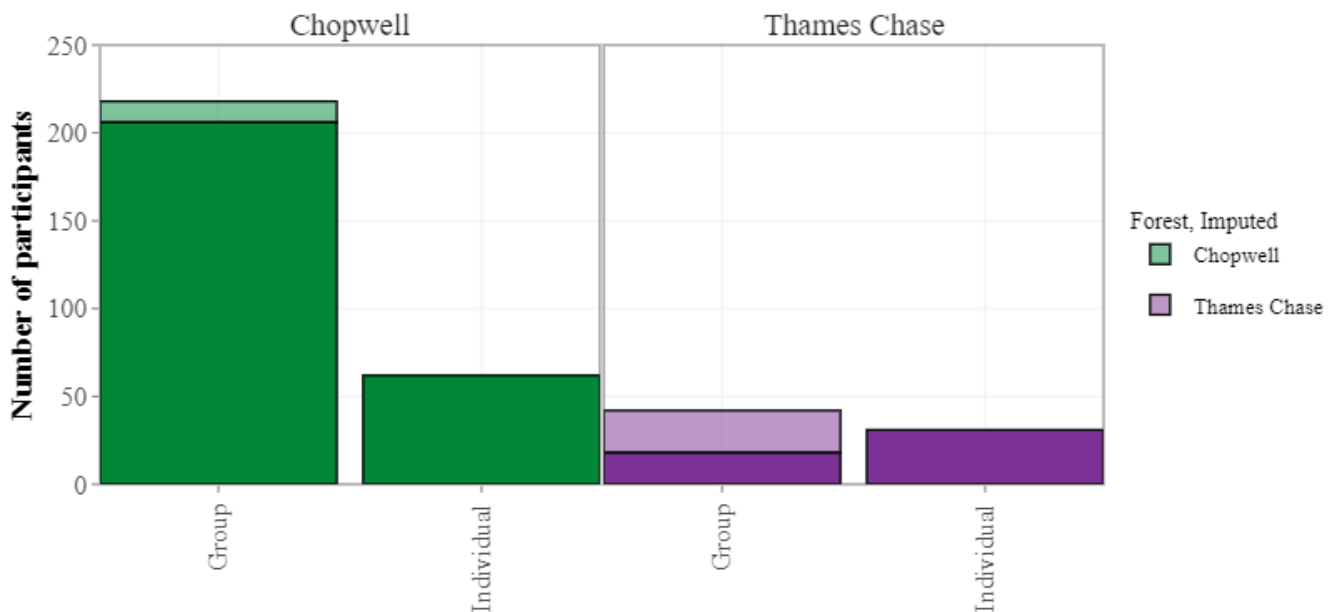
*'I think we've seen over the time a lot of it has been more about the social side of it, as much as they've got into the physical activity side of it. Making*

*friends and having that connection with other people seems to be a big driving force for them to keep coming.’ (Female AFC, Chopwell Wood)*

## 3.2 Quantitative Results

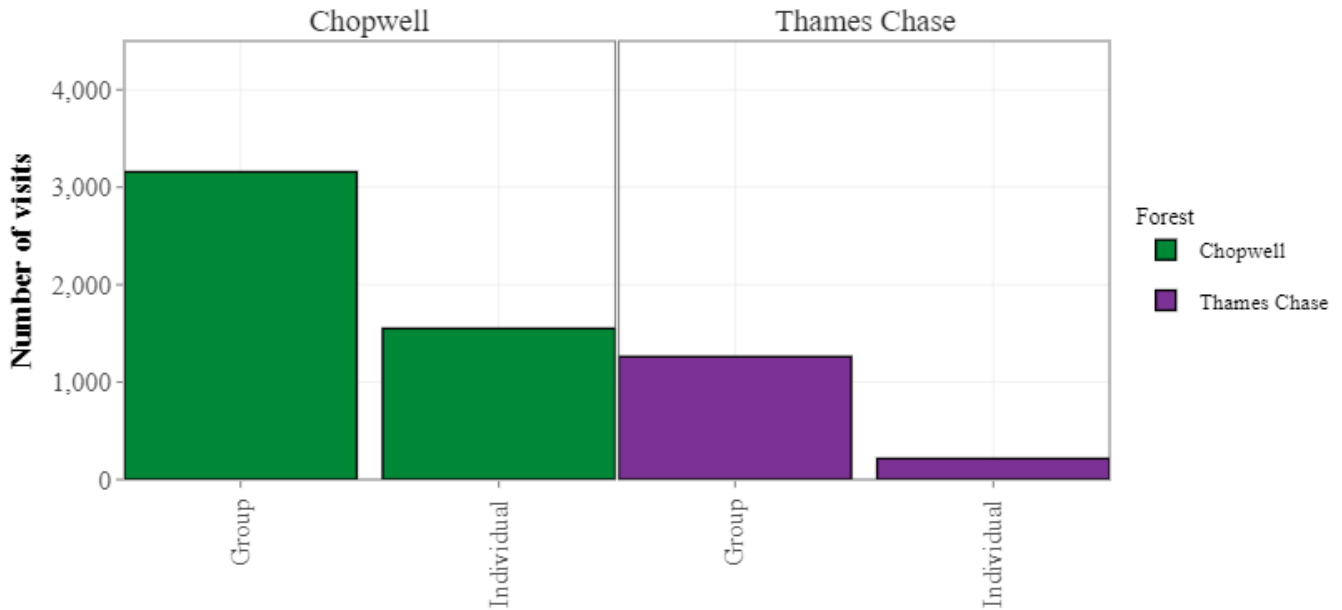
### 3.2.1 Participants and visits

Figure 4 shows the number of participants by groups and individuals at the two forest sites. The greatest number of participants were for group activities at Chopwell (n=218). Number of participants for groups (n=36) and individuals (n=31) were similar at Thames Chase.



**Figure 4.** Number of participants by groups and individuals at Chopwell and Thames Chase. Transparent sections for groups show imputed data, where group size was unknown. Imputed values based on median group size per forest site.

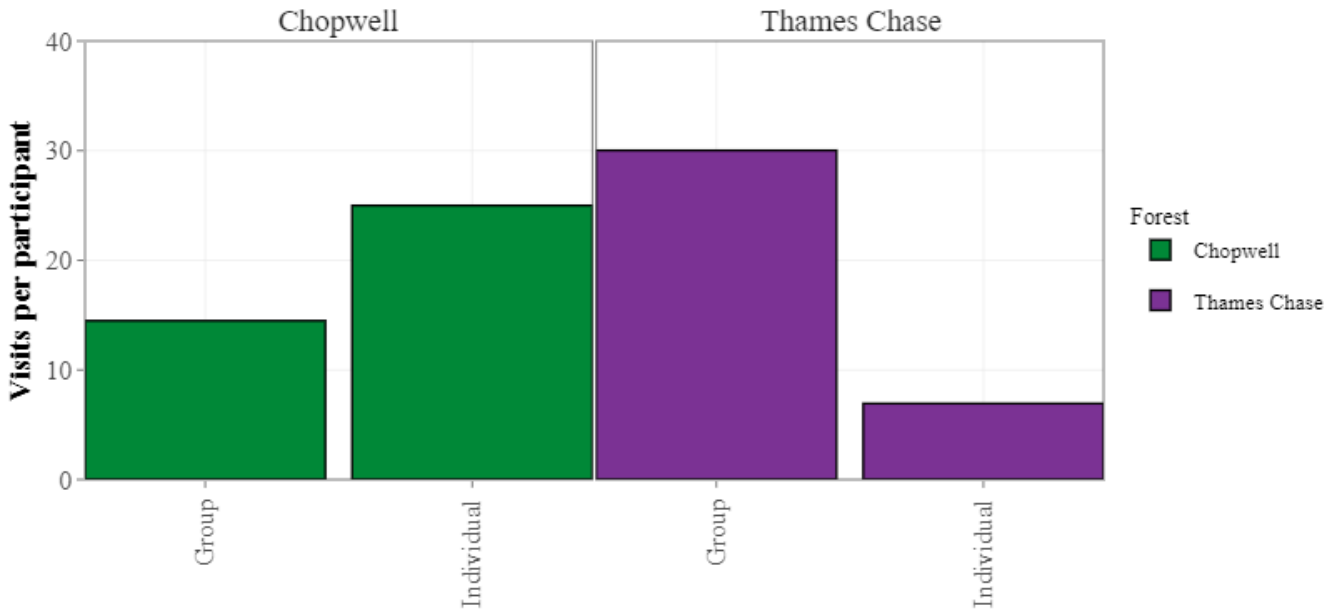
Figure 5 shows the number of visits by groups (4,418) and individuals (1,765) at the two forest sites. The greatest number of visits were for group activities at Chopwell (3,157), whereas the lowest number of visits were for individuals at Thames Chase (215).



**Figure 5.** Number of visits by groups and individuals at Chopwell and Thames Chase.

Figure 6 shows the estimated number of visits per participant by groups and individuals at the two forest sites. The greatest number of visits per participant were for groups at Thames Chase, although this estimate should be viewed with caution as half of the data for group sizes at Thames Chase (2/4 groups) were imputed based on median group size. Despite this, there is a trend for greater visits per individual participant at Chopwell versus greater visits per group participant at Thames Chase.

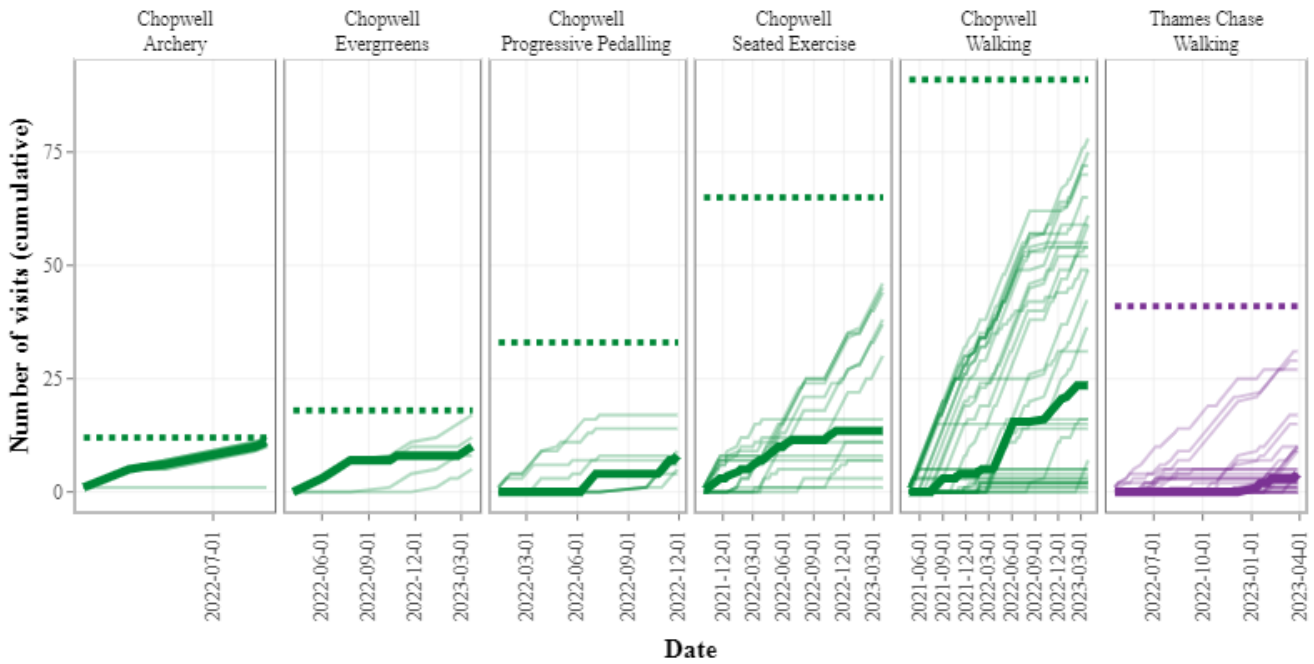




**Figure 6.** Estimated number of visits per participant by groups and individuals at Chopwell and Thames Chase. Estimates are calculated on total visits divided by total participants per category.

### 3.2.2 Attendance through time

Figure 7 shows visits by participant through time for individual activities at the two forest sites, with maximum attainable visits shown by the dashed horizontal lines and average (median) cumulative visits shown by the thick solid lines. Table 4 provides further details on these key metrics. Archery at Chopwell had the best proportion of attendance, although total number of participants was small. Total participants and number of dropouts for walking were similar at the two sites, although participants attended 26% of sessions on average at Chopwell versus 10% at Thames Chase.

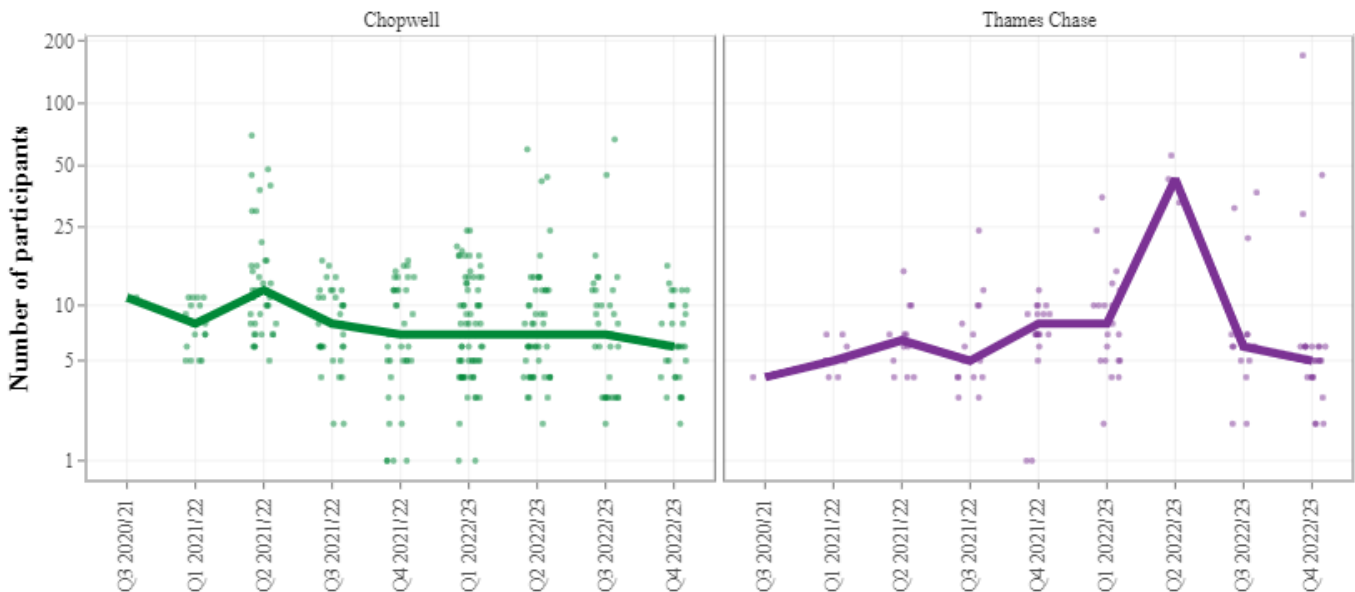


**Figure 7.** Cumulative number of visits per participant (thinner transparent lines) by activity and forest site for individual activities. Thick opaque solid lines show median cumulative attendance. Dashed horizontal lines show total number of sessions per activity.

**Table 4.** Individual activities: Key metrics by forest site and activity. Note: “Dropout” is defined as having not attended for four or more consecutive weeks from latest/final week of activity

| Forest       | Physical Activity     | Total Participants | Total Sessions | Median Attendance | Number of Dropouts | Proportion Attendance |
|--------------|-----------------------|--------------------|----------------|-------------------|--------------------|-----------------------|
| Chopwell     | Archery               | 6                  | 12             | 11.0              | 1                  | 0.92                  |
| Chopwell     | Evergrreens           | 5                  | 18             | 10.0              | 1                  | 0.56                  |
| Chopwell     | Progressive Pedalling | 9                  | 33             | 8.0               | 5                  | 0.24                  |
| Chopwell     | Seated Exercise       | 14                 | 65             | 13.5              | 8                  | 0.21                  |
| Chopwell     | Walking               | 34                 | 91             | 23.5              | 23                 | 0.26                  |
| Thames Chase | Walking               | 31                 | 41             | 4.0               | 20                 | 0.10                  |

Figure 8 shows the number of participants per group on a quarterly basis (each data point indicates a single session, and one group may be represented by multiple sessions in a quarter). There were no clear trends through time or across forest sites, with 5-10 participants per group per quarter.

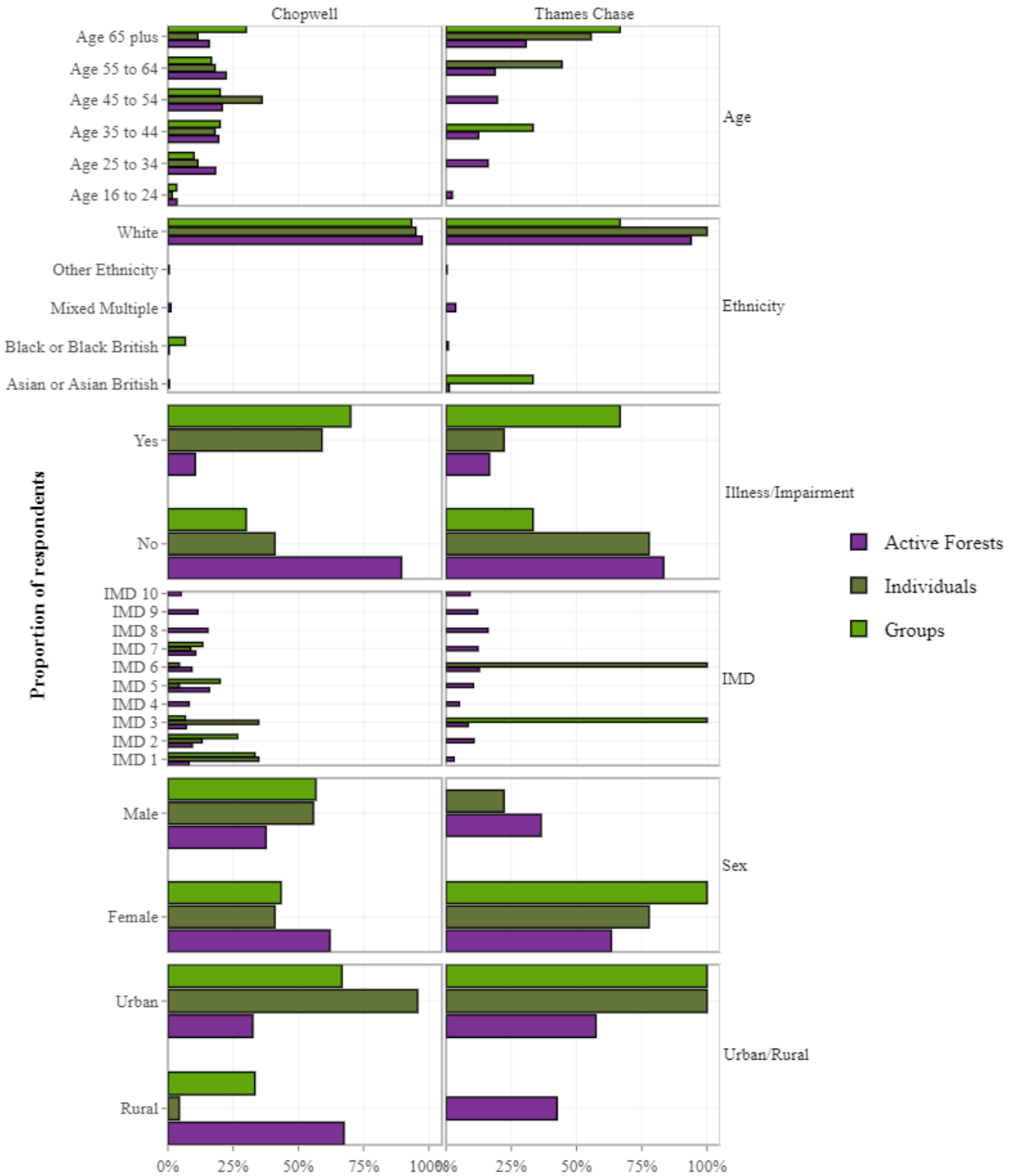


**Figure 8.** Number of participants per group on a quarterly basis by forest site. Individual transparent data points show participants per group, with a small amount of random variation added to the x axis value to better separate points. A single group may be represented by multiple points per quarter. Thick opaque solid lines show median number of participants per quarter. Note log<sub>10</sub> y axis.

### 3.2.3 Individuals and groups: Demographics

Figure 9 shows the demographic breakdown for the individuals and group members completing social prescribing survey versus the Active Forests survey over the same time period. Sample sizes for Thames Chase were small for the social prescribing survey (<10), but the Chopwell data indicated that individuals and group members taking part in the social prescribing pilot tended to be older, more likely to have an illness or impairment, from more deprived urban areas and male. The results for individuals and group members were generally very similar, with

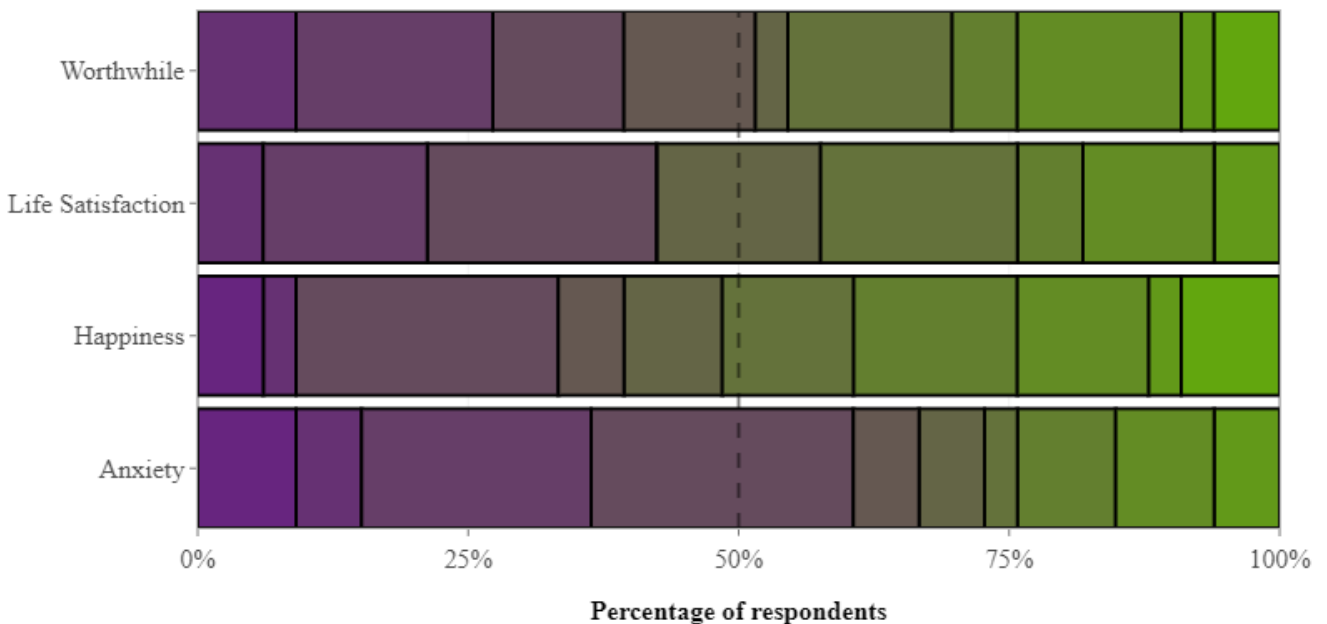
some indication of individuals being more likely to come from urban areas than group members at Chopwell.



**Figure 9.** Demographic breakdown of individual respondents taking part in the social prescribing survey (individuals and groups) versus the Active Forests survey (transparent) over the same time period. Data are broken down into panels by forest site and demographic.

### 3.2.4 Groups: ONS4

Figure 10 shows the scores for Office for National Statistics (ONS) 4 personal wellbeing questions for survey respondents from social prescribing groups, which are compared here to mean [England-level results for 2020/2021](#). The median score for anxiety was 3, in line with England-level results (3.31). The median score for happiness was 6, versus 7.3 for England. The median score for life satisfaction was 5, versus 7.4 for England. The median score for worthwhile was 4, versus 7.7 for England. Although the sample here is small (33), the data do indicate notably lower worthwhile and life satisfaction for those individuals taking part in the social prescribing individual survey.

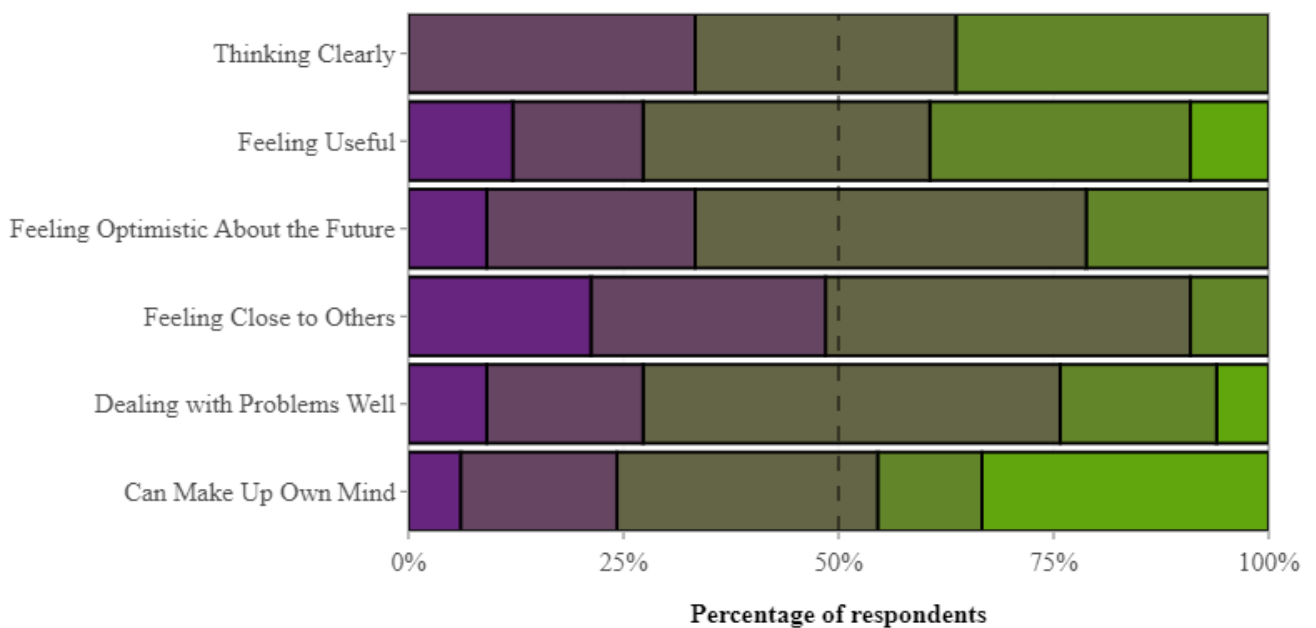


**Figure 10.** ONS4 scores (0-10; purple-green) by question and response. Dashed line shows median score.

### 3.2.5 Groups: SWEMWBS

Figure 11 shows the scores for the Short Warwick Edinburgh Mental Wellbeing Scale questions for survey respondents from social prescribing groups, which are

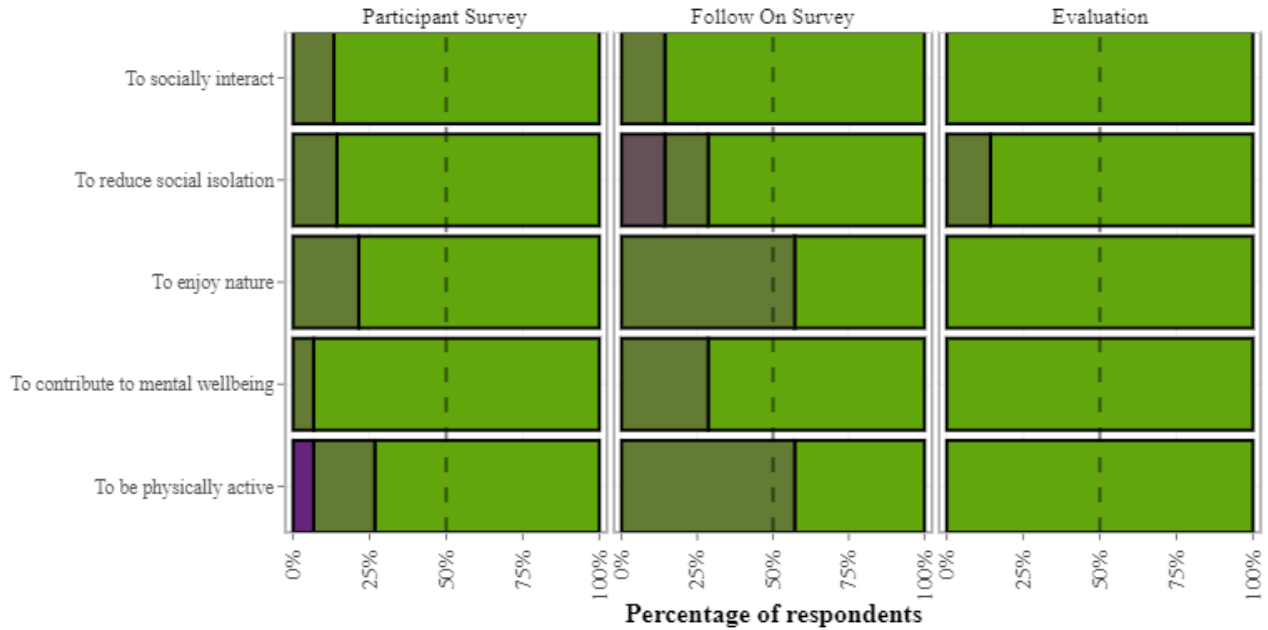
compared here to UK values from [Tennant et al. 2007](#). The median response for all questions here was “some of the time”; for all UK values the median result was “often” in all cases except feeling optimistic about the future, which was “some of the time”. Although the sample here is small (33), the data do indicate reduced wellbeing versus the referenced source.



**Figure 11.** SWEMWBS scores by question and response. Dashed line shows median score.

### 3.2.6 Groups: Feedback

Figure 12 shows feedback across 14 groups for the importance of five goals in the group booking form participant survey and follow on survey (50% response rate), along with an evaluation of satisfaction as to whether these goals were met. All five goals were deemed very important in the participant survey and very or somewhat important in the follow-on survey. Almost all groups were very satisfied that all these goals were met by the social prescribing pilot.

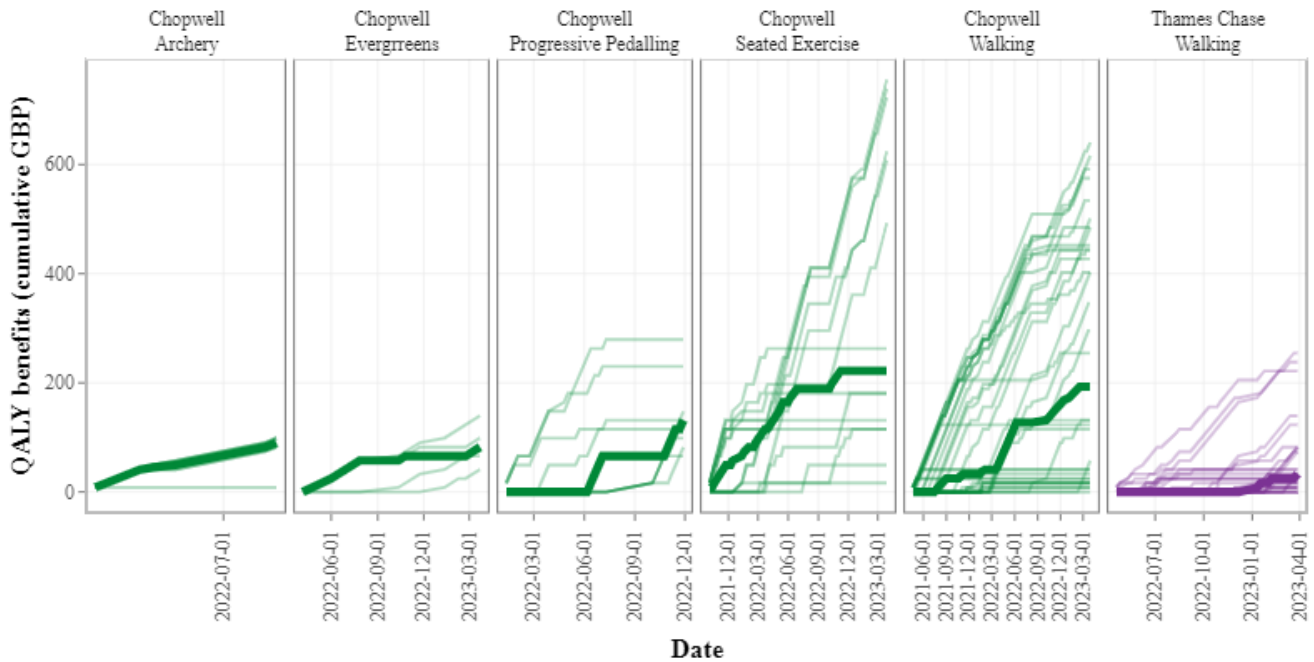


**Figure 12.** Group feedback scores by question and response for participant survey, follow on survey and evaluation. Dashed line shows median score.

### 3.2.7 Individuals: Health Benefits

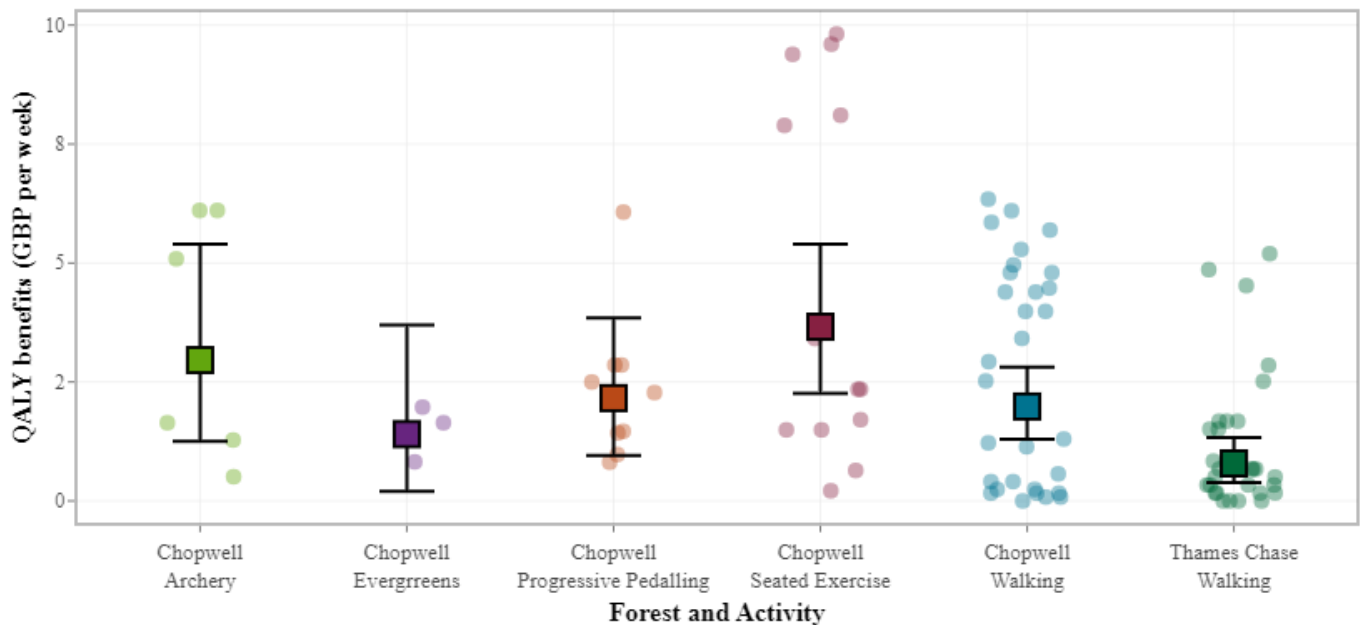
Figure 13 shows the cumulative quality adjusted life year benefits in GB pounds per person for social prescribing participants by activity and site. The median values over the time periods vary between 33 pounds for Thames Chase Walking to 222 pounds for seated exercise, although the length of time the activity had been running for and dropout rates affected these estimates.





**Figure 13.** Cumulative quality adjust life year benefits (GBP) per participant (thinner transparent lines) by activity and forest site for individual activities. Thick opaque solid lines show median cumulative quality adjust life year benefits (GBP).

Figure 14 shows the aligned QALY comparisons, where QALY benefits were estimated per person per week, based on the length of time people had been attending their activity. Analysis of this metric showed a significant effect ( $F_{5,87}$ ,  $p = 0.0008$ ) of the combination of physical activity and forest site on the weekly estimated QALY benefit, with the lowest weekly benefit being for Evergreens (1.40 GBP per week) and the highest for seated exercise (3.66 GBP per week).



**Figure 14.** Quality adjusted life year (QALY) benefit per week (GBP) per person by forest site and activity. Transparent circles show estimates per participant, with a small amount of random variation added to the x axis to better separate the point. Opaque squares and error bars show estimated marginal means and 95% confidence intervals.

## 4 Methodological and data gathering challenges

There have been several challenges related to the evaluation. Obviously the Covid-19 pandemic had a major impact. Not only did it mean that activities and data gathering were delayed but when survey data gathering was possible Covid-19 precautions prevented the use of tablets due to concerns about the spread of Covid-19. This meant data was gathered via paper copies, meaning more work for the AFCs and others in gathering and inputting data.

The Short Warwick Edinburgh Mental Wellbeing Scale and ONS questions were felt by data gatherers to be difficult to run with the social prescribing participants as they ask some questions that those suffering from mental health issues might find upsetting or challenging. This might be reflected in the lack of follow-on surveys completed. These difficulties suggest that qualitative approaches are important as

part of a mixed methodology, and useful as the questions are less stark, threatening, and seemingly confrontational.

## 5 Conclusions

The Feel Good in the Forest Pilot evaluation highlights the impact that the project had on participants who got involved in terms of, particularly, mental and social wellbeing and improving confidence in physical activity ability. The participants reached through the project fitted the profile for social prescribing interventions, namely those who were social isolated, physically less active or inactive, and those with mental health problems. Therefore, the project successfully reached the right target audiences and the AFCs developed effective collaborations with a range of very relevant organisations to offer a variety of different activities. It is important to acknowledge that it takes time to build long-term relationships with marginalised groups and creating time for this in interventions is critical. The pilot project was not without its challenges in particular Covid-19 had a large impact, and the lack of an AFC at Thames Chase for many months also disrupted the project. Gathering personal data about mental wellbeing, anxiety and feelings of worth via a questionnaire such as SWEMWEBS and the ONS4 can feel particularly impersonal and obtrusive if a person has mental health issues or reduced wellbeing, and a relationship has not been developed with the participant. The qualitative research, however, does provide a rich picture of the many benefits participants gained and it also highlights the views of others organising, running and collaborating in the pilot project, concerning what worked and how participants benefited.

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