



Forestry Commission Scotland  
Coimisean na Coilltearachd Alba



**Branching Out**  
Positive Mental Health  
Through Nature



**2007-2018**

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Forestry Commission Scotland



- **Health Walks**
- Horticultural therapy
- **Branching Out**
- Green Gym
- Natural Play
- Forest School
- WAP for people with Dementia



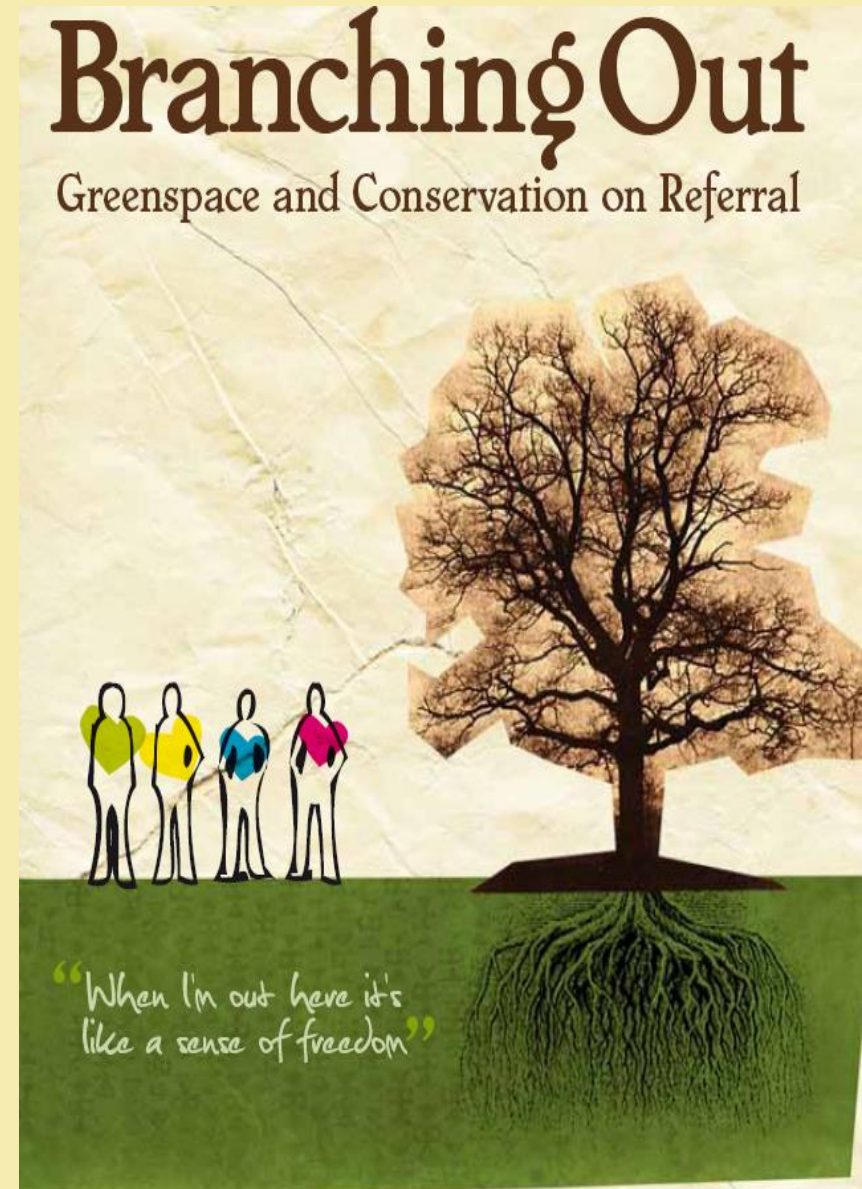
Greenspace and conservation  
on referral for adults using  
mental health services

Programme runs in 10 area  
health boards across Scotland

40 plus groups delivered per  
annum

Established training programme  
for environment and health  
professionals

Economic study 2016





## Branching Out Summary of Economic Study

Branching Out is a programme run by Forestry Commission Scotland (FCS) that aims to improve the Health-Related Quality of Life of adults experiencing severe and enduring mental health problems. First established in 2007, it is based on a 12-week programme of woodland activities, which are used as a vehicle to help participants learn strategies that can maintain positive mental health. It runs as an adjunct treatment for those in secondary and tertiary care.

The programme has been evaluated through two survey-based studies, one for 2011-2012 and one for 2014-2015. The studies used 12-point short form surveys, completed by participants both before and immediately after the scheme, with a follow-up survey three months after completion of the programme.

The 2011-2012 survey showed benefits in Quality-Adjusted Life Years (QALYs), a standard measure used to assess the cost-effectiveness of treatments across the health care sector, but these were not statistically significant. It also showed that the programme was cost-effective when compared with the National Institute for Health and Care Excellence (NICE) guidelines. The aim of the 2014-2015 survey was to increase the amount of data available, to see whether a larger sample would show statistically significant effects for QALYs, and to extend the analysis of the programme's cost-effectiveness.

The results of both surveys show small but significant improvements in participants' mental health, social participation and general vitality. Perhaps because of a relatively low response rate to the full survey, the benefits for QALYs in the 2014-2015<sup>1</sup> survey are also not statistically significant.

Improvements in mental health and vitality as a result of the scheme are particularly marked for participants with more severe mental health problems before they entered the programme.

The programme has a high retention rate. Participants were more likely to maintain contact with Branching Out than with comparable schemes, which indicates their satisfaction with it.

The cost of one QALY delivered through Branching Out is just over £17,000. This compares favourably with the NICE benchmark of £30,000 for an intervention to deliver one QALY. Although it was not possible to collect reliable data on how long its benefits last, this indicates that Branching Out is a cost-effective way to improve mental health.

Details of the programme are available at [www.forestry.gov.uk/branchingout](http://www.forestry.gov.uk/branchingout)

<sup>1</sup>QC Consulting, 2016. Branching Out Economic Evaluation Final Report to Forestry Commission Scotland. Available at: [www.forestry.gov.uk/branchingout](http://www.forestry.gov.uk/branchingout)

## Branching Out Positive Mental Health Through Nature

*with a programme of woodland activities, which are used as a vehicle to help participants learn strategies that can maintain positive mental health.*

### Introduction

Branching Out is an innovative project that offers holistic, person-centred, approach promoting 'breaks in bad mental health'. It brings together mental health professionals and outdoor staff to create a supportive, enjoyable, and safe environment for long-term mental health problems.

A Branching Out programme lasts for 12 weeks, and a participant is a group of up to 12 participants. The programme involves two visits each week, usually for about 90 minutes at a time. It is delivered by a qualified Branching Out leader and/or volunteer alongside mental health professionals to help maintain an outdoor participant.

Through the programme of woodland activities, Branching Out helps participants build coping strategies to maintain positive mental health. It offers participants a chance to experience self-confidence, outdoor recreation, peace and exercise, and feel supported with their community.

### Methodology

The programme has been evaluated through two survey-based studies, one for 2011-2012 and one for 2014-2015. The surveys used 12-point short form surveys, completed by participants both before and immediately after the scheme, with a follow-up survey three months after completion of the programme. In turn, a single Quality of Life Form (QoL) survey was used to be conducted for the 12-15 dimensions. Participants were asked to complete questionnaire pre and immediately post programme within 3 months post programme.

### Results

The main analysis was of the changes in QALYs and 12-15 dimensions from pre-programme to immediate post-programme. The 2014-2015 dataset showed small but significant improvements in 12 mental health-related QoL dimensions and 12-15 dimensions from pre-programme to immediate post-programme. The QALY benefits (mean = 0.0036) were not significant in the 2011-2012 dataset (mean = 0.0009). The 2014-2015 QALY gain for 2011-2012 was 0.0026. The programme continues to support the evidence that Branching Out improves mental health, social participation and general vitality. The cost of delivered significant benefits for 2014-2015 was just over the price of £17,000. This compares favourably with the NICE benchmark of £30,000 for an intervention to deliver one QALY.

The financial cost per participant of entering to a specific Branching Out was estimated at £163 per participant in 2014-2015 based on the pre- and post-programme QALY change estimated from the 2011-2012 results. Based on the QALY for 2014-2015 (mean = 0.0036). This programme cost-effectiveness analysis that in 12 weeks intervention is cost-effective against the National Institute for Health and Care Excellence (NICE) per QALY benchmark. This means the benefits are estimated to a gain. Due to the small number of iterations able to be conducted on the delivery of QALY benefits, if benefits generally tend to suggest a sequence of intervention measures is needed in order to build on the initial benefits.

### Conclusions

- The programme delivers benefits to participants and these are primarily for participants with long-term mental health and vitality issues at entry to the programme.
- There are differences between the QALY gains in the surveys used (2011-2012 and 2014-2015). The 2014-2015 survey shows the differences in QALYs and vitality between the surveys entry to the programme.
- Costs of the intervention relative to what is possible to cost to increase the cost effectiveness of Branching Out.
- Programme delivery costs per participant were lower in 2014-2015 than in 2011-2012, mainly due to the QALY gains per participant were also lower.
- The programme cost effectiveness in 2014-2015 was £17,000 per QALY, based on the 2011-2012 mean QALY change calculated for the programme. The evidence on the duration of the benefits delivered by participants was unclear.
- Initial attendance and retention rates (14 sessions completed) were higher in the Branching Out programme than in the comparison. High retention rates were an indicator of satisfaction with the intervention on the part of those participating.

### Contact details

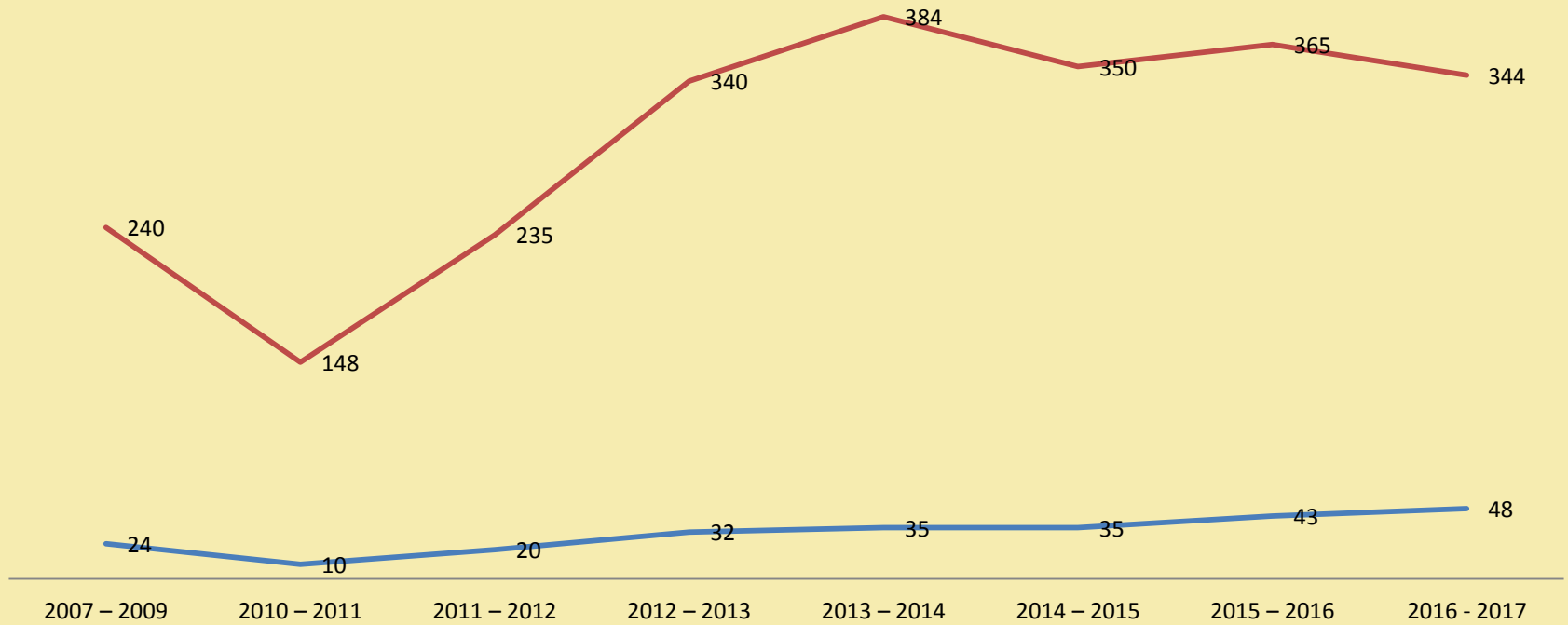
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## No's of groups and referrals since 2007

— Total Number of Groups    — Total Number of clients referred



## Quantitative evidence using Cost Utility Analysis

- Recent health economic study carried out over 2 years
- Data collected in 2014 and 2015
- Short form 12 questionnaires (self-administered patient questionnaire to measure treatment effectiveness - [www.optum.com](http://www.optum.com))
- Baseline, Post & 3 month follow-up

### Your Health and Well-Being

This survey asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities.

For each of the following questions, please tick the one box that best describes your answer.

1. In general, would you say your health is:

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

2. The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

|  |                            |                            |                            |
|--|----------------------------|----------------------------|----------------------------|
|  | Yes, limited a lot         | Yes, limited a little      | No, not limited at all     |
|  | ▼                          | ▼                          | ▼                          |
| 1 Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 |
| 2 Climbing several flights of stairs.....  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 |

## Quantitative evidence using Cost Utility Analysis: Results

- Scores converted to SD-6 scores (health state classification utility scores)
- Lower score indicates a worse health state and a higher score indicates improved health state
- Pooled data shows Improvements in scores for physical health, mental health, vitality, social functioning and life role measured.
- Used to calculate cost of Quality-Adjusted Life Years (QALY)
- Pooled data shows a QALY improvement in 51% of participants, and no change in 10% of participants (n=175)
- 2011/12 data shows QALY improvement in 57%, and no change in 8% (n=73)

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| ▼                          | ▼                          | ▼                          | ▼                          | ▼                          |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

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|   |                            |                            |                            |
|---|----------------------------|----------------------------|----------------------------|
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|   | ▼                          | ▼                          | ▼                          |
| 4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 |
| 5. Climbing <u>several</u> flights of stairs.....   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 |



- One QALY costs £17,300 compared to NICE guidelines of £30,000.
- Completion rate 2007 – 2015 is 70% (2050 participants)
- Adults with moderate to severe & enduring conditions show the most improvement.

Focus groups (2007) reported 5 areas of improvement:

1. Mental wellbeing
2. Physical health
3. Daily structure and routine
4. Transferable skills acquisition
5. Social skills and networking






# Branching Out Economic Study

- The cost of one QALY delivered through Branching Out is £17,300
- NICE benchmark of £30,000 for intervention to deliver QALY gain
- Branching Out is a cost-effective way to improve mental health



Details of the programme are available at [www.forestry.gov.uk/branchingout](http://www.forestry.gov.uk/branchingout)

# Other Green Prescription programmes



*"I came with trepidation,  
but went away with  
a spring in my step."*


*"The power of the senses  
is a strong trigger for  
memories and being in the  
woodland is a complete  
sensory experience."*

**To book a place please contact the ranger service  
Forestry Commission Scotland Rangers**  
Gordon Harper 07798 668 125 or  
Julie Hamilton 07876 508 586  
E-mail: [scottishlowlands@forestry.gsi.gov.uk](mailto:scottishlowlands@forestry.gsi.gov.uk)

**For research enquiries contact:**  
Jim Smalls 0779 6938 403

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## Woodland Activity Programme

For People with  
Early-Stage Dementia



*Be part of our  
woodland story,  
a tale of adventure  
and exploration.*

Callendar Wood, Falkirk  
July–September 2016



30062016 1003



## Benefits for people with dementia and their carers:

- Being treated as equals
- Improvements in self-esteem
- Increased confidence
- Increased socialisation
- Mental restoration
- Connection to the past life experiences
- A sense of togetherness
- New and innovative service that complements traditional therapeutic interventions



## Forests as places of mental well-being for people with dementia

Mandy Cook

June 2015

This Research Note is based on a PhD research study 'Forests as places of mental well-being: the meaning and use of urban forests by people with early-stage dementia'. The study examines and develops ways for people with dementia (especially those in the early stages) to engage with nature, and with other people, in the context of trees, woodlands and forests. Initial results from the study found that a pilot programme of activities, led by Forestry Commission Scotland rangers in an urban woodland setting, provided an overwhelmingly positive experience for people with early-stage dementia, by offering meaningful experiences that contributed to well-being and feelings of self-worth. The woodland environment also provided a 'library' of resources and stimulation. The programme helped people with early-stage dementia remain active and connected within the community, enabling them to maintain their independence for as long as possible, and provided support for carers. Such programmes can be seen as a new and innovative way of engaging with people with early-stage dementia, which could complement traditional therapeutic interventions. As the Note stresses, an 'end of the road' approach to people with dementia is no longer acceptable. We need to explore more ways of providing care with an emphasis on empowerment and maintaining the best possible quality of life. It is hoped that this Note will provide a valuable resource, not only for people who manage woodlands and other green spaces, but also for health-care professionals.









Questions directed to:

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Website:

[www.forestry.gov.uk/branchingout](http://www.forestry.gov.uk/branchingout)

Photography:

Forestry Commission Picture Library  
& Andrew MacDonald

[www.exhibitscotland.com](http://www.exhibitscotland.com)