Be active: a community based approach to promoting physical activity in overweight individuals

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A community based approach to promoting physical activity in overweight individuals

Final Report

June 2012
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"Be Active has supported people in Barnsley to lose weight and become physically active!"
1.0 Introduction

1.1 The aim of the report

- The aim of this report is to present a brief critical appraisal of the Barnsley ‘Be Active’ programme. This is so commissioners, providers, practitioners and researchers of physical activity interventions have an informed platform upon which to consider the future promotion of physical activity and prevention of obesity in adults, particularly in Barnsley.

- The report provides the following:
  - A background to the Be Active Programme. This includes consideration of the national and local health contexts in which the programme was delivered.
  - A brief outline of the Be Active Programme.
  - Summary of programme delivery outputs.
  - Consideration of programme impact.
  - Next steps, including recommendations for local commissioners and providers of physical activity interventions to prevent obesity.

"Being active is no longer simply an option – it is essential if we are to live healthy and fulfilling lives into old age" (DH, 2004).

2.0 Background

2.1 The need to 'Be Active'

There is compelling scientific evidence that physical activity, performed on a regular basis, is associated with significant positive physical and mental health benefits (Department of Health, 2004; 2011).

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1 This is not an independent evaluation of Barnsley Be Active. Instead it represents a service evaluation undertaken as part of the project commission.
Physical activity plays an important role in the prevention of various chronic diseases, such as cardiovascular disease, ischemic stroke, hypertension, diabetes mellitus, osteoporosis, disability related to chronic musculoskeletal conditions, colon cancers and fall-related injuries (Department of Health, 2011). Importantly here, physical activity is a key component of maintaining a healthy weight.

However, in the UK, only 30% of adults meet the recommendations for physical activity (NHS Information Centre, 2009). More worryingly, objective measures of physical activity suggest that only 6% of men and 4% of women are sufficiently active to be of benefit to their health (NHS Information Centre for Health and Social Care, 2009).

The cumulative impact of this sedentary culture is a rising prevalence of obesity in virtually all populations and age groups worldwide (Behn and Ur, 2006). Furthermore, without intervention predictions suggest nearly 60% of adults in the UK will be clinically obese by 2050 (Foresight report, 2007).

### 2.2 The impact of obesity & inactivity

Obesity is associated with numerous co-morbidities such as cardiovascular disease, sleep apnoea, hypertension and certain cancers (Lavie et al, 2009).

Obesity also has serious negative psychological consequences including; social exclusion, depression and reduced self-esteem (Department of Health, 2004).

The annual costs of obesity and physical inactivity in England are estimated at £10.7 billion (Department of Health, 2004). These are forecast to more than double by 2050 if current trends persist (Foresight, 2007).

Therefore, the challenge of getting individuals more active, more often remains a public health priority.

### 3.0 Intervention in Barnsley

Barnsley, has been identified as a borough of poor health with 34% (67,000 individuals) of the adult population estimated to be overweight (Body Mass Index (BMI) of 25-29.9 as defined by WHO, 2010) and a further 73,000 individuals estimated to already be in the obese category (BMI >30 as defined by WHO, 2010).

Furthermore, in 2008/9 a Sport England survey of activity status indicated that Barnsley ranked in the bottom 25% nationally and that in fact only 19.1% of the Barnsley population took part in regular sport or active recreation (Active Peoples Survey, 2008/9). These figures are closely linked with areas of deprivation in the Borough.
With this in mind a rationale was developed by NHS Barnsley to provide overweight individuals in 9 of the most deprived areas of the borough with increased access and support to be physically active. This programme was called 'Be Active'.

4.0 Programme Overview

The Be Active programme represented a community based behaviour change intervention designed to increase physical activity in overweight individuals (BMI 25 - 29.9) and their families in 9 of the most deprived areas of Barnsley. It's primary objective was to help promote and encourage behaviour change at an individual and family systems level and add to the active environment that currently exists in Barnsley.

Be Active was a multi-component physical activity behaviour change intervention that comprised 4 key elements;

Physical activity

Be Active provided free physical activity provision across 9 target locations in Barnsley. Provision was informed by public consultation and delivered in partnership with local service providers. This was a continuous process with activities changing based on demand and input from users.

Behaviour change DVD

A free interactive DVD designed to motivate and help individuals plan how they could become more physically active was provided to all participants upon registration. The DVD included case studies, assessments of readiness to change and confidence to exercise and strategies to overcome barriers to being active. The DVD was underpinned by NICE guidance on physical activity and behaviour change (2007).

Small changes

Small Changes was an elective 12-week weight management programme that provided additional support for lifestyle change based on increasing and improving physical activity participation and diet. The programme adopts a client-centred approach and uses motivational interviewing to help people initiate and maintain lifestyle changes that fit within the context of their lives. It allows individuals to generate their own plans and recognise what they are able to achieve, rather than offering a 'one-size fits all' prescription.

Lifestyle sessions

Lifestyle assessment sessions provided one-to-one client centred support for participants, offering feedback on health indicators relating to obesity and CVD risk. With a strong 'motivational interview' focus, sessions enabled participants to explore their ambivalence towards changing their physical activity and dietary behaviours and offered sign-posting to high quality support.
5.0 Project Delivery

5.1 Outputs
The programme delivered a number of outputs including physical activity provision, weight management groups, one-to-one support, DVD distribution, behaviour change training and a community garden.

5.2 Physical activity
Physical activity provision was delivered over an 83 week period (from 26.04.10 to 25.11.11) and consisted of 2,540 hours of dry side activities as well as open access to public swimming (September 2010 - July 2011). Provision included 46 different activities and the delivery of 1752 different sessions. Activities were delivered in a range of local venues, including
community centres and church halls. The provision of local opportunities enabled greater access for members and raised the profile of physical activity in the community.

'The simple provision of physical activity supported by a logical argument as to why it is a good thing is simply not enough to engage individuals in becoming more active (Hall Aitken, 2009)'

One of the key strengths of the programme was the approach taken in the development of activities. The timetable was initially informed by a large public consultation performed at the design phase of the programme. It was continually informed and driven forward by on-going consultation with Be Active members and service providers.

This flexible approach allowed the programme to evolve and include activities based on the preferences of the members and the target population. As a result Be Active provided physical activity opportunities that were relevant to member’s needs. In particular, swimming was in high demand, so in response, funding was redirected towards this activity to provide greater access.

5.2 Weight management

20 Small Changes programmes were delivered across the 9 target areas, each area hosting at least one. This provided access to the programme for up-to 200 people. In total, 111 people completed the course.

5.3 One-to-one support

Lifestyle sessions were offered to all eligible Be Active members upon registration. Sessions were offered at baseline and then at 6 month intervals.

The sessions were delivered once a month in each of the 9 target areas. A wide range of accessible venues including community centres, libraries and health centres were utilised.
Each one-to-one session consisted of physiological testing (i.e. blood pressure, cholesterol) as well as behaviour change counselling. Using a client-centred approach, the participants were able to choose from a menu of options and tailor the session based on their needs.

5.4 Behaviour change DVD

The behaviour change DVD was provided to each household upon registration, as well as the wider public through open days and community 'drop-in's'. Over 5,000 DVD's were distributed. The DVD also acted as an effective engagement tool to assist recruitment within the local community.

Brief evaluation of the DVD indicated positive feedback. Based on a sample of 294 users, 92%\(^4\) had watched the DVD and of those, 96% reported that they were more motivated to become active (see Figure 1) with 93% self-reporting they had made changes to their lifestyle in favour of physical activity. Such feedback demonstrates the DVD's efficacy and potential use as a brief intervention within primary care.

'This DVD inspired me to get more active which has also rubbed off on my family. We now all do things together'

Figure 1: Change in self-reported motivation to be active after watching the DVD

\(^4\) Based on a sample size of 234 respondents
5.5 Training

*Be Active* provided a series of training workshops in Motivational Interviewing and Lifestyle change to a range of people working within the health sector of Barnsley, including NHS workers and local service providers such as Barnsley FC’s Community Sports and Education Trust, Active Barnsley and Barnsley Premier Leisure. This training was an important part of embedding a legacy of skilled practitioners within the field of obesity and health in the local workforce. Moving forwards it is likely that this element of the *Be Active* programme will have a positive impact on the way obesity and overweight is supported and tackled in the Borough.

5.6 Community garden

One of the most impressive outputs of the *Be Active* programme was the development of a community garden. Working in partnership with local service providers, and with the support and commitment of a small group of *Be Active* members, a plot of wasteland was identified and converted into a working community garden. The garden enables a wide range of individuals and community groups to engage in active living and benefit physically, socially and mentally from the garden.

With the on-going support of local service providers\(^5\) and volunteers, it is hoped that the community garden will continue to support people to improve their lifestyle, particularly those from deprived communities and those with physical and mental disabilities.

\(^5\) The *Be Active* team wish to recognise the contribution made by Nick Gillet (Active Barnsley), who was predominantly responsible for driving forward the community garden initiative.
5.7 Community engagement

To promote the programme and increase awareness across the 9 target locations, a *Be Active* 'brand' was developed as part of the community engagement strategy. It was critical to establish a brand as it provided the programme with a recognisable identity that members of the local community could understand 'what' *Be Active* was about.

The marketing campaign comprised of a series of promotional material\(^6\) that was distributed locally in a range of locations\(^7\), including two mass leaflet drops that distributed to over 65,000 households across the 9 target areas. This was further supported by utilising wider reaching mediums such as local radio adverts, GP surgery promotional videos (Life channel), local editorials, social media and a website. The website was integral to the engagement strategy as it allowed potential *Be Active* members to sign up to the programme and provided up-to-date information about the service, representing a clear communication channel between the programme and the wider community.

Through our marketing campaign, *Be Active* was able to raise awareness and generate a 'buzz' within the target areas. Once the programme established a presence amongst local communities, 'word of mouth' played a critical role in helping to enhance awareness, with over 60% of the members claiming to have heard about the programme from someone in their community.

Working with local service providers formed an essential part of the engagement strategy. Utilising specialist local knowledge and making the most of established client-provider trust relationships enabled closer links to be forged between *Be Active* and the local communities.

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\(^6\) leaflets, posters, flyers, postcards, banner stands, DVD
\(^7\) GP surgeries, pharmacies, libraries, leisure centres, post offices, health centres, shops
it served. A key success of the programme was the employment of a community development worker (Mr Adam White - Barnsley Dearne Community Partnership) who was able to significantly increase recruitment in one of the most socially deprived areas. This approach to community engagement proved to be successful in one of the hardest to reach communities. Looking ahead it will be important that individuals with specialist 'on the ground' skills with appropriate local knowledge are recruited to physical activity/lifestyle posts to support individuals over the longer-term. The health trainer model is one good example of this approach.

5.8 Membership profile

The Be Active programme recruited 7,206 members from 4,815 households. Of those members, 72% were female and 28% were male.

70% (5,011) were eligible, meaning they had a BMI of over 25, with the remaining 30% (2,195) being made up of family members. BMI breakdown of eligible members is represented in table 1.0. In total, 89.4% of the members resided in or in close proximity to the 9 target areas, with only 10.6% residing in an area outside of these target zones.

<table>
<thead>
<tr>
<th>BMI</th>
<th>% of members (n = 5011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.5 - 29.9</td>
<td>45.6 (2,285)</td>
</tr>
<tr>
<td>30 - 39.9</td>
<td>43.4 (2,175)</td>
</tr>
<tr>
<td>40+</td>
<td>11 (551)</td>
</tr>
</tbody>
</table>

Table 1.0: BMI breakdown of eligible members

A breakdown of the distribution of residence is highlighted in table 2.0.

<table>
<thead>
<tr>
<th>Area</th>
<th># of members</th>
<th>% of members (n = 7206)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoyland</td>
<td>1,002</td>
<td>13.9</td>
</tr>
<tr>
<td>Wombwell</td>
<td>1,175</td>
<td>16.3</td>
</tr>
<tr>
<td>Lundwood</td>
<td>829</td>
<td>11.5</td>
</tr>
<tr>
<td>Thurnscoe</td>
<td>793</td>
<td>11</td>
</tr>
<tr>
<td>Athersley</td>
<td>706</td>
<td>9.8</td>
</tr>
<tr>
<td>Worsbrough</td>
<td>677</td>
<td>9.4</td>
</tr>
<tr>
<td>Goldthorpe</td>
<td>598</td>
<td>8.3</td>
</tr>
<tr>
<td>Grimethorpe</td>
<td>360</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 2.0: Breakdown of the residential distribution of Be Active members
The mean age of a Be Active member was 38 years. This is encouraging as it demonstrates a high level of engagement with a younger target audience, something not necessarily seen in traditional exercise referral programmes. The distribution of age is highlighted in table 3.0.

<table>
<thead>
<tr>
<th>Age</th>
<th>% of members (n=5635)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 24</td>
<td>15.9</td>
</tr>
<tr>
<td>25 - 34</td>
<td>27.1</td>
</tr>
<tr>
<td>35 - 44</td>
<td>26.4</td>
</tr>
<tr>
<td>45 - 54</td>
<td>16.3</td>
</tr>
<tr>
<td>55 - 64</td>
<td>9.6</td>
</tr>
</tbody>
</table>

### Table 3.0: Age distribution of Be Active members (18+ years)

5.9 Physical activity attendance

There were 13,951 dry-side attendances by ~1630 individuals all of whom attended at least once. This equates to 22.6% of the membership. Over 42% attended 5 or more sessions. In addition, there were 11,248 swimming attendances by 2,505 individuals, all of whom attended at least once, some multiple times. This equates to 34.8% of the membership. Figure 2 outlines the total attendance rate (i.e. swimming and dry-side activity) across the lifetime of the programme.

5.10 Attendance profile

The highest level of physical activity engagement came from members aged 25 to 34 years with over 24.5% of individuals attending dry-side sessions. This was closely followed by members aged 35-44, with over 24% attending the activities. The mean age for attending members is 36 years.

In terms of residential location, the highest engagement was observed in Wombwell, with almost 23% of attending members living in that area. The lowest engagement was observed in Kendray with only 4.2% of attending members living in that area. Physical

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8 This is based on a sample of 5635 members aged 18+ years.
9 This figure has been calculated based on a sample of 9,278 attendances and 1,176 unique users.
10 Based on a sample of 872 members attending dryside activities only.
11 Based on a sample of 898 members attending dryside activities only.
activity engagement is likely to be associated with the relative distribution of members by residence, as highlighted in table 2.0.
6.0 Effects of Be Active on physical and mental health

6.1 Health outcomes

Programme effectiveness was determined by collecting health indices data from a sample of 124\(^{12}\) individuals who attended lifestyle sessions and follow-up reviews. BMI, cholesterol, blood glucose, blood pressure, waist circumference, physical activity and quality of life (SF-12) at 6-months\(^{13}\) from baseline was assessed. A summary of the health indices data is presented in table 4.0.

6.2 Changes in weight, body composition and blood pressure

An exploration of weight and body composition data using paired t-test analysis revealed a significant and beneficial change over time for weight (p=0.001), BMI (p=0.001), waist circumference (p=0.001) and blood pressure (systolic p=0.001 and diastolic p=0.003).

\(^{12}\) sample size varies based on outcomes measure.

\(^{13}\) mean follow-up period 7months from baseline.
In real terms this equates to a mean weight loss per person of 3kg, a reduction in waist circumference of over 4cm, and a fall in BMI of 0.95 units. The reductions observed in Systolic (5.6mm/Hg) and diastolic (2.6mm/Hg) blood pressure represent a significant move towards the 'healthy norm' of 120/80mm/Hg (mean 123/82mm/Hg).

Findings here support the research evidence that physical activity can play an important role in the regulation and reduction of blood pressure, particularly in overweight individuals (Ebrahim & Davey Smith, 1998). Importantly, the Be Active data is also based on a relatively long term follow-up (6-month).

### Table 4.0: Summary of health indices

<table>
<thead>
<tr>
<th>Outcome</th>
<th>n</th>
<th>baseline (mean ± STD)</th>
<th>6-month follow-up (mean ± STD)</th>
<th>Mean difference</th>
<th>Significance (alpha p&lt;0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (Kg)</td>
<td>124</td>
<td>88.09</td>
<td>85.34</td>
<td>-2.75</td>
<td>.001</td>
</tr>
<tr>
<td>BMI</td>
<td>124</td>
<td>32.15</td>
<td>31.19</td>
<td>-.95</td>
<td>.001</td>
</tr>
<tr>
<td>Physical Activity (GPPAQ)</td>
<td>89</td>
<td>2.38</td>
<td>2.55</td>
<td>.17</td>
<td>.195</td>
</tr>
<tr>
<td>Physical QoL (SF-12)</td>
<td>79</td>
<td>42.52</td>
<td>42.83</td>
<td>.31</td>
<td>.756</td>
</tr>
<tr>
<td>Mental QoL (SF-12)</td>
<td>79</td>
<td>46.79</td>
<td>48.22</td>
<td>1.42</td>
<td>.193*</td>
</tr>
<tr>
<td>Waist circumference (cm)</td>
<td>119</td>
<td>104.11</td>
<td>99.93</td>
<td>-4.17</td>
<td>.001</td>
</tr>
<tr>
<td>Systolic Blood pressure (mm/Hg)</td>
<td>119</td>
<td>129.05</td>
<td>123.48</td>
<td>-5.57</td>
<td>.001*</td>
</tr>
<tr>
<td>Diastolic Blood pressure (mm/Hg)</td>
<td>119</td>
<td>85.21</td>
<td>82.63</td>
<td>-2.58</td>
<td>.003</td>
</tr>
<tr>
<td>Total cholesterol (mmol/l)</td>
<td>93</td>
<td>4.92</td>
<td>4.90</td>
<td>.02</td>
<td>.761</td>
</tr>
<tr>
<td>LDL (mmol/l)</td>
<td>84</td>
<td>2.75</td>
<td>2.79</td>
<td>.05</td>
<td>.472</td>
</tr>
<tr>
<td>HDL (mmol/l)</td>
<td>92</td>
<td>1.24</td>
<td>1.26</td>
<td>.02</td>
<td>.616*</td>
</tr>
<tr>
<td>Blood Glucose (mmol/l)</td>
<td>93</td>
<td>5.49</td>
<td>5.53</td>
<td>.04</td>
<td>.726*</td>
</tr>
</tbody>
</table>

* P value is calculated using Wilcoxon Signed Ranked Test
The reduction in waist circumference is particularly encouraging in light of the strong association between central adiposity and increased CVD risk and insulin resistance (Lebovitz, 2003). Moreover, recent data has demonstrated that weight loss strongly increases the chances of reversing an individual’s blood glucose status from pre-diabetes to normal glucose tolerance (Kowall et al., 2011). The results here therefore have much potential.

Interestingly, a recent review of the Public health impact of community-based interventions reported that for outcomes such as blood pressure and BMI, interventions generally struggle to demonstrate improvements (Verheijden & Kok, 2005).

Whilst it is critical to recognise the lack of a control arm in what is essentially service evaluation data, the results here confirm that the Be Active programme has made a significant and positive contribution to the weight, blood pressure and body composition of participants.

**Sue, 53 from Worsbrough, joined Be Active in June 2011.**

Since then, she has completed the 12 week Small Changes programme and is now regularly attending swimming, going to the gym, eating more healthily and has lost 1 1/2 stone! Sue says, "It's been fantastic, it has changed my life...I have learnt to eat the right things and it's working". Sue now feels that she has more energy, can breathe better, has improved her walking and is now "doing what she wants to do!"
6.3 Changes in blood profile - cholesterol & glucose

*Be Active* data suggests the programme had a positive but minor effect on reducing total serum cholesterol (4.92 mmol/l to 4.90 mmol/l) and improving HDL (1.24 mmol/l to 1.26 mmol/l). Changes were not statistically significant for total cholesterol (p= 0.76) or HDL (p= 0.62).

Although it is recognised that increased physical activity can positively influence cholesterol (DH, 2004), the absence of meaningful change here is consistent with a recent review of the effect of exercise on overweight and obesity (Shaw et al, 2009). Shaw and colleagues revealed that in three different exercise trials involving 348 participants, intervention participants (i.e. those who exercised) did not significantly (p=0.65) reduce their serum cholesterol compared with controls (i.e. those who did not exercise). This suggests that whilst physical activity is an important aspect of achieving a healthy weight, making cholesterol specific changes might be better suited to dietary intervention in combination with exercise as opposed to physical activity alone.

Physical activity has also been shown to reduce levels of blood glucose (Shaw et al, 2009). However, data here reported an adverse effect, with glucose levels increasing by 0.04 mmol/l (p=0.73). One explanation for this slight change could be that during the testing phase, individuals were not sufficiently fasted. Whilst every attempt was made to inform participants of the importance of fasting pre-lifestyle check, it is a possibility that for some participants this was not always possible or adhered to.

Future programmes assessing blood glucose should recognise this limitation and in response might wish to consider implementing tighter control measures. That said, it is important to be mindful of the pragmatic nature of data collection in community settings and as part of service delivery as opposed to controlled research designs.

6.4 Changes in physical activity

Physical activity (PA) was assessed using the General Practice Physical Activity Questionnaire (GPPAQ). The GPPAQ is a validated screening tool used in primary care to assess adults PA using a 4 level Physical Activity Index (PAI). The GPPAQ categorises patients as; Active, Moderately Active, Moderately Inactive, and Inactive, and is correlated with CVD risk. All patients who receive a ‘less than active’ score should be offered a brief Intervention in Physical Activity in line with NICE Guidance (2006).
As a population at baseline Be Active members were categorised as moderately inactive with a mean GPPAQ score of 2.38. At follow-up the sample reported a slight increase in mean PA of 2.55\textsuperscript{14}. This change was not significant (p= 0.195).

However, one of the limitations of the GPPAQ is that it does not account for activities such as walking, housework and gardening within its PAI calculation. This is because they have not been shown to yield data of sufficient reliability to contribute to an objective assessment of overall PA (DH, 2009). Given that these activities contribute towards the current recommendations of 150 minutes of moderate exercise per week and in light of qualitative feedback suggesting that an increase in walking was prevalent amongst the Be

\textit{"Since joining Be Active, I've taken up walking and joined a slimming class and I'm now trying to eat healthier"}

\textsuperscript{14} GPPAQ data was coded; Inactive (1), moderately inactive (2), moderately active (3) & active (4)
Active members (39%<sup>15</sup> reported walking more since joining the programme), it is likely that data here represents only a modest account of the increase in physical activity of Be Active members.

Although beyond the scope of this service evaluation, future programmes might wish to consider how to incorporate an objective measure of physical activity within the assessment process. This could include use of accelerometers or pedometers. Whilst these devices are useful adjuncts to aid evaluation it is important to be mindful of the investment required from participants to wear such monitors consistently.

6.5 Changes in quality of life

Quality of life was assessed using the short form of the satisfaction with life questionnaire (SF-12) (Ware, Kosinski & Keller, 1995). Trend data confirmed that participants in the Be Active programme had improved both mental (+1.42) and physical (+0.31) wellbeing from baseline, with a greater change observed in the mental wellbeing component. Greater increases in the mental component of the SF-12 post exercise intervention are consistent with previous studies in this area (Greaves & Farbus, 2006; Dicken et al., 2011). Changes here however were not significant (p>0.05).

Importantly however, participants registered with Be Active reported physical and mental wellbeing scores below the UK population norms (MCS = 50.9/PCS = 52.1), suggesting that the programme had recruited socially deprived individuals and families.

Although these findings confirm the efficacy of the Be Active approach with this population, it further highlights the need to promote physical activity within typically hard to reach communities with lower mental and physical wellbeing. This seems particularly important when considering exercise has the capacity to positively impact physical and mental wellbeing simultaneously. Data here confirms the need to maintain a focus locally on increasing physical activity and in deprived communities.

"Thank you for helping and giving me the motivation and confidence to help myself get more active!"

<sup>15</sup> Based on 59 members providing qualitative feedback regarding changes since joining Be Active.
7.0 Broader Impact

7.1 Enhanced physical activity

Data from the fourth Sport England Active People Survey (December 2010), highlight the positive contribution the Be Active initiative has made to adult participation in physical activity in Barnsley.

The results for Barnsley showed an increase in physical activity from 19.1% to 22.4% of adults participating in 3 x 30 minutes physical activity per week (National Indicator 8 - Change between APS1 (Oct05-Oct 06) and APS4/5 (Oct 09-Oct 11).

To strengthen the evidence for the increase of physical activity in Barnsley, trend data from Department of Health (2011)\(^\text{16}\) taken between 2009 and 2011 confirms physical activity in adults has increased from 8.3% to 12.1% and is above the national average for the first time.

Whilst the lack of longitudinal data and the absence of an experimental research design would mean any causal link between increasing physical activity rates in Barnsley and the Be Active programme must be treated with caution, data here is nevertheless encouraging.

7.2 Impact on obesity

Data from the department of health has indicated a decrease in adult obesity in Barnsley from 28.5% in 2009 to 28.4% in 2011. Although this represents a minimal change, it should be noted that the UK average in 2009 was 23.6% and 24.2% in 2011, representing a 0.6% increase. Such data suggests that despite an overall increase throughout the UK, the adult obesity prevalence in Barnsley has reversed that trend.

Once again, any causal link between this change and the Be Active programme should be treated with caution due to the lack of longitudinal data and control in the research design.

\(^{16}\) Department of Health, English Public Health Observatories - Participation in moderate intensity sport and active recreation on 20 or more days in the previous 4 weeks, (equivalent to 30 minutes on 5 or more days per week).
7.3 Cost effectiveness analysis

A predictive health economic model based on cardiovascular risk factors is being explored to determine the potential economic and clinical impact of the programme. This will be forwarded as an annex to the report.

8.0 Working in Partnership

8.1 Drawing partners together

A key objective of Be Active was to engage and effectively work with a wide range of partners throughout Barnsley. This included service providers and community support workers from local NHS, local authority, sporting charities and the private sector. During the programme lifetime, Be Active developed strong working relationships with these partners that enabled the project to move forward with consultation, promotion, recruitment and delivery. Establishing and utilising local partners was critical to the immediate impact of the programme.

A major strength of the programme was the working partnership between Be Active, Barnsley Metropolitan Borough Council and NHS Barnsley. There was a continual open dialogue between the parties that allowed for discussion, feedback, idea generation and change. This flexible approach meant the programme was able to adapt to challenges and road-blocks quickly and effectively and was therefore better able to meet the needs of the project and more importantly, the Be Active members. This was critical to the success of the programme and working to foster a similar relationship is a strong recommendation for future projects.

9.0 Legacy - So what's next?

9.1 Website

As part of the legacy, Be Active has redeveloped its website to form a physical activity directory for use by all residents of the Barnsley borough, including local service providers and health workers.

It has been designed to be simple and easy to navigate around so that users can quickly identify physical activity opportunities in their community. This has been achieved via use of an interactive map of their local area.

The site also provides additional information on healthy eating, physical activity and useful tools and techniques to support and maintain behaviour change. It also uses case studies of people from Barnsley who have increased their activity.
It is envisaged that the website will act a useful resource for all those individuals who would like to be more active or for those that are supporting others in becoming active.
10.0 Recommendations

10.1 For Barnsley stakeholders

- The co-production of the physical activity agenda between communities, user groups and deliverers should be one of the first considerations when developing physical activity interventions. This is because involving members in programme decisions empowers them to participate.

- A clear social marketing strategy to increase engagement within target locations is fundamental and needs to be supported with localised community based workers that can reinforce a consistent message. Once the message has been established within a community ‘word of mouth’ is the most effective marketing strategy.

- Empowering community support workers to establish ownership and inform the delivery of the project has been critical to the success of the programme. Future programmes should consider how to streamline this approach.

- By working in partnership with local service providers, Be Active was able to engage the 'hard to reach' communities which was essential to the success of the project.

- It is important that effort is given to maintaining and building on partnerships at operational level between individuals, organisations and communities who can influence the physical activity agenda in Barnsley. This includes commissioners,
deliverers, public health specialists and voluntary and commercial sectors.

- Free physical activity does provide sufficient a hook to engage individuals and families in participation. However, long-term behaviour change requires programmes to teach participant’s skills relating to the control of behaviour. The multi-component approach taken by Be Active has demonstrated some success to this end.

- A flexible working partnership between project stakeholders has been critical to the success of programme. This approach allows for quick and effective methods of overcoming challenges which meant the programme was better able to meet the needs of the members.

- Embed the promotion of physical activity in the strategic fabric of the City via shared targets and policies and across organisations. To help achieve this, a multi-agency Borough-wide forum that holds a strong strategic focus with clearly identified roles and responsibilities for all members is suggested.

- Continue to foster a consistent and normative message about physical activity and healthy lifestyles through the brand of Be Active so that these messages are maintained within the social structure of the city.

10.2 For practitioners

The following bullet points provide brief suggestions of how to move the learning forward from the Be Active programme in terms of practical implementation.

- Notwithstanding issues surrounding funding, seek to adopt a model which has a non-restrictive policy regarding locations for physical activity. This will widen the availability of physical activity provision across the borough and make the programme more inclusive. Such an approach is also likely to contribute to a social norm of physical activity in the Borough.

- Widen or indeed remove the BMI parameters for inclusion in referral programmes. Whilst we recognise the danger of funding an existing active population through such an approach, we encountered difficulties in recruiting due to the targeted approach based on BMI.

- Furthermore, the link to weight management attracted individuals who were over and above the BMI range for overweight. Creating a ‘catch-all’ approach to activity will only enhance norms around an active population. However, it also appears important to provide specialist programmes for individuals who have a BMI above 30.

- Through the Be Active public consultation it became clear that there was less emphasis placed on quantity of provision and more on quality.
• It is essential to establish one agenda between service providers. This means;
  ▪ Creating stronger links and working relationships between services – more emphasis on working towards a shared and common goal
  ▪ Establishing effective referral systems between services
  ▪ Reducing duplication of services and instead seeking to support a 'whole system' approach to promoting physical activity. This means that all partners are fully informed of their role and how that contributes to the agenda.

• Resource should be allocated to a broad social marketing campaign to promote physical activity across Barnsley. To achieve this, learning from Be Active suggests;
  ▪ Make the most of available community advertising space to promote the message of physical activity i.e. billboards, bus stop posters, bus and taxi posters.
  ▪ Reach more communities and individuals through a dedicated web-based campaign i.e. twitter and face-book that is linked to the Be Active webpage.
  ▪ Seek to engage the private and business sector through demonstrating the bottom-line benefits of an active workforce and supporting them to make policy and intervention-based decisions to promote physical activity in their workforce.
11.0 References


Department of health (2004). The general practice physical activity questionnaire (GPPAQ): a screening tool to assess adult physical activity levels, within primary care.


12.0 Further Information

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