EVALUATION OF CHOOSING HEALTH PHYSICAL ACTIVITY PROJECTS 2009 - 2011

FINAL REPORT

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Executive Summary

Scope of the Research

1. The evaluation has reviewed 6 diverse *Choosing Health* physical activity projects including Exercise Referral, Health Walks, Fit Kids, Vitality, Disability (Inclusion) and over 45's Activators projects. The research remit has been extremely broad in evaluating the range and quality of the interventions, their management and implementation and impact in terms of participation, process and outcomes.

2. To determine the wide impact of the projects the research methodology has used a variety of research methods to analyse and validate the quantitative and qualitative effects of the interventions. The data from the evaluation demonstrates the value and output of the projects and adds to the local and national evidence base.

Impact and participation

3. Physical activity contributes to countering 4 of the 5 top risk factors for premature death in the UK and 4 of the 6 top risk factors for increasing disease burdens (WHO, 2002). A substantial national and international evidence base has identified that engagement in regular physical exercise supports health benefits - a finding confirmed at the local level through this evaluation.
4. The Choosing Health Programmes in Lincolnshire have matched or exceeded targets with approximately 20,000 people accessing the service over 2 years and increasing their daily levels of physical activity.
5. The diversity of activities provided to meet varying need has contributed to moving the curve of 30 minutes daily activity both at an individual and population level as measured by Lincolnshire's Active People Survey.
6. The Programme has contributed to reducing health inequalities by engaging with vulnerable groups - many of whom are new to sport or physical activity - and tackling the wider determinants of health. The evaluation has determined how projects have acted as catalysts to healthier lifestyles.
7. The projects have been effective in engaging people in sustained regular activity, embedding in their daily lives and creating long-term impact. Gathering self-reported information on improvements in health and analysing health data collated by the projects has built up a substantial local evidence base of the effects of interventions on health profiles and outcomes.
8. There is a multiplicity in the range of improved outcomes in physical and mental health evidenced by the evaluation including reduced BMIs, blood pressure and pain levels, improving mobility, breathing and balance and the alleviation of depression and stress. The projects are both augmenting and substituting medical interventions, as alternatives to prescribed medication and physiotherapy (with cost effectiveness implications).

Implementation & Innovation

9. National guidance and standards of practice have been implemented effectively in Lincolnshire in structured programmes such as Exercise Referral, Walking for Health and Fit Kids. Schemes compare favourably with national performance and have in the case of Health Walks been commended by Natural England as a model of good practice.

10. Innovative and sustainable local solutions to increase physical activity have been determined in schemes such as Vitality, New Age Kurling and New Age Bowls and the over 45's activators project.
11. A co-ordinated and countywide approach has been developed over the 2 years, with an increasing vision and leadership. Processes and systems have become more rigorous particularly in relation to monitoring and evaluation, with the use of audits and toolkits.

Quality of Provision

12. The quality of provision has been evidenced through the evaluation:
    Safety and security – the programme provides safe and secure exercising environments for participation, for those with particular health conditions
    Effectiveness – different projects have been able to support a range of conditions and are able to report higher levels of sustained physical activity and improved health outcomes
    User experience - positive user experiences and commitment to the projects has enabled substantive changes in health behaviour patterns and outcomes

Costs and Benefits

13. Compared to national data the costs of interventions in Lincolnshire are comparatively low ranging from approximately £15 per person per year (for Health Walks) to £290 for structured programmes (such as Fit Kids and Exercise Referral).
14. As identified in national research, benefits are considerable in relation to costs, with a reporting by the Public Health Commissioning Network (2010) of a 'future cost saving for the NHS per participant involved in local physical activity ranging from £770 to £4900'.
15. Sustainable and cost effective approaches have been developed using volunteers and social enterprise models of delivery.

Recommendations include:

16. Maintaining the co-ordination of a county-wide framework for physical activity with local delivery routes – with more co-ordination of branding and stronger identity for schemes overall.
17. Rolling out the models of physical activity interventions to a wider population, where under-capacity and gaps still exists and engaging wider target groups such as men and younger participants.
18. Creating stronger partnerships with health and other professionals to increase engagement and integration at a local level. (The health screening route is presently under-utilised and more links with schools could be built). It is also important to build networks with business and the third sector to widen funding and participation levels.
19. Continuing support for the *range* of projects - given that diversity and choice is central to increasing physical activity and short and long term outcomes in morbidity and mortality rates.

1. INTRODUCTION

1.1 The Context - Policy

Health inequalities and improving the health of the nation remains at the centre of policy debate and development as illustrated in the Marmot Strategic Review of Health Inequalities (2010) and the DH White Paper 'Healthy Lives, Healthy People, Our Strategy for Public Health in England (2010)' The issue remains not only the disparity between life expectancy, but also the levels of disability effected over the life course. The Marmot Review (2010) reporting that not only do people in England living in the poorest areas die on average 7 years earlier than people in the richest areas, but that the average difference in disability free life expectancy is 17 years.

Building on previous policy initiatives, such as Choosing Health (2004) the accent in tackling the structural and behavioural causes of poor health outcomes remains not just on the NHS and national government, but increasing partnerships and effective delivery systems at the local level which involves local government, the third and private sectors and community groups. Within the proposed establishment of 'Public Health England' a 'core element' will be the return of local public health leadership and responsibility to local government with an onus on 'integration, localism, partnership and collaboration'. Moreover, whilst the vision may be to 'improve the health of the poorest, fastest' (DH 2010), there is a recognition that 'focusing solely on the most disadvantaged will not reduce health inequalities sufficiently (Marmot 2010) given the steep and multiple slopes of equality that persist, with consequent recommendations that actions to improve health are both universal and 'with a scale and intensity that is proportionate to the level of disadvantage' (Marmot 2010).

It is not just the effects on the individual that drives health improvement, important though that is as the basis of a 'fair' society and for social capital, but the further impact that health inequality and poor health outcomes have in terms of economic growth and long-term cost for the NHS. Frontier Economics (2009), for example, have estimated that illness resulting from inequality accounts for productivity losses of £31-33 billion per year and additional NHS healthcare costs in excess of £5.5 billion per year, with lost taxes and welfare payments in the range of £20-32 billion per year.

Providing the support to 'choose' healthier lifestyles nevertheless requires structures, interventions and pathways in which the individual and community is supported to easily adopt healthier behaviour, particularly for those in more marginalised areas and groups where changes in lifestyle are often more difficult to consider and sustain. Physical activity along with healthy eating, smoking and alcohol use being the four main 'behaviours', where changes in patterns of daily living are seen to have the most effect in terms of reducing the wide disparity in rates of mortality and morbidity. Indeed, the evidence base for the role of physical activity has been increasingly recognised as research and government policy establishes more about the relationship between levels of physical activities and health outcomes.

'Choosing Activity' as an important strand of Choosing Health (2004) and the publication of the Chief Medical Officer's 'At Least Five a Week' (2004) emphasised the role of physical activity in decreasing the risk of developing up to 20 chronic diseases and was recognised as an important part in reducing rising obesity levels in the UK as part of 'Healthy Weights, Healthy Lives' (2008). 'Be Active Be Healthy' (2009) and the launch of 'Change4Life' in its 'lifestyle revolution' further put physical activity as the 'basic foundation for healthier lifestyles', with evidenced benefits that physical activity can reduce the risk of coronary heart disease, stroke and type 2 diabetes by up to 50% (DH 2009) and the risk of premature death by 20-30%. Moreover, that in terms of mental well being that physical activity is 'associated with reduced risk of depression and dementia in later life',

is 'effective in the treatment of clinical depression' and 'can be as successful as psychotherapy or medication particularly in the long term' (DH 2009). Indeed, new research continues to add to the evidence base as its effects on the reduction of risk of cancer, recent findings from the Washington School of Medicine on bowel cancer have demonstrated that there is a 'clear link between exercise and a reduced risk of bowel cancer'.

The Chief Medical Officers Report (2004) which established that adults should participate in at least 30 minutes moderately intensive activity on 5 days a week and young people 60 minutes every day therefore remains at the centre of health advice. Sara Hiom, Director of Health Information at Cancer Research UK, for example, stated in response to the new evidence on physical activity and bowel cancer, now the third most common cancer in Britain:

"We'd recommend doing at least half an hour's moderate exercise a day - such as brisk walking or anything that leaves you slightly out of breath. Getting enough physical activity will also help you keep a healthy weight, which is one of the most important ways of reducing the risk of cancer."

In terms of financial costings the DH (2009) has estimated that the costs of physical inactivity amount to around £8.3 billion each year resulting from costs to the NHS of between £1 billion and £1.8 billion, £5.5 billion from sickness absence and £1 billion from premature death of people of working age (DH 2009), with the average healthcare cost for each PCT being £5 million per year. Besides improved health outcomes, reduced inequality and costings the rationale for increased participation rates in sports and physical activity is the positive effects on communities and individuals through providing opportunities for inclusion and inter-action by more isolated groups, improved sporting excellence and competition as we approach the 2012 Olympics. The effects on community capacity and social capital through involvement and participation in volunteering, coaching and club development are consequently of no less importance and feed into improved health outcomes themselves in terms of changes in physical and mental well being. The net effect is therefore a multiplicity of inter-related effects on healthier living patterns and choices, employment, social capital and the environment.

Within Lincolnshire whilst the health of people is generally better than the England average inequality still persists, both at a county and district level. Marmot indicators (London Health Observatory) show that even though male expectancy at birth is equal to the average 'England Value' at 78.3 years it is still 6 years below England's 'best' value at 84.4 years and inequality of male life expectancy within the authority from the least to most deprived areas is 7 years. Female life expectancy at birth is of even more concern given that at 82 years it is less than the England average of 82.3 years and 7 years below the 'best' value of 89 years. As a county with an increasingly ageing population the priority also remains how to keep people active to prevent demographics having an undue demand on resources. For whilst the fourth Sport England Active People Survey (2010) has revealed that Lincolnshire has increased its N18 indicator of 3 x 30 minutes of moderate intensity sport and recreation per week from 23% of the surveyed population in 2008-9 to 23.9% in 2009-10 and 3.9% from its baseline in 2005-6, other data indicates the natural expected decline in activity as people get older. Within the Active People Survey 4 it also indicates, for example, the decrease in physical activity by age group with 35.5% of the 16-34 age group achieving 3 x 30 minutes activity per week, compared with 27.7% for ages 35-55 and 14.1% for ages 55 and over. Indeed, the cost of inactivity to the Lincolnshire Primary Care Trust with its increasingly ageing and relatively inactive population has been estimated by the British Heart Foundation for the Department of Health to be in excess of £15 million a year, far higher than the noted average of £5 million and one of the highest figures for a primary care trust in England. This is equivalent to 1,000 hip replacements or 170,000 nurse consultations.

It is in this context that the Choosing Health physical activity programme is funded across Lincolnshire (with further funding from the 'uplift' of the Health and Well Being Fund during 2009-11) to support structured programmes and set up grassroots projects in which access, choice and participation in physical activity is widened.

1.2 Research Process

1.2.1 Research Objectives.

The Choosing Health projects represent a diverse range of initiatives and interventions to raise levels of awareness and participation in physical activity which include:

- Exercise Referral
- Fit Kids
- Health Walks
- Vitality
- Over 45's Activators
- New Age Kurling and New Age Bowls – inclusion projects

The central objective of the research was to provide an overall evaluation framework that thematically investigated the process and impact of the projects and how they have effected change and increase participation in physical activity through exploration of the following inter-related factors:

- Management and coordination of projects
- Access and barriers to services
- Community involvement and participation
- Use of resources
- Range of services provided by the programme
- Quality of services provided by the programme
- What is the value added – what is the value of impact on social benefits – the unintended consequences?

1.2.2. Methodology

Gathering evidence of impact from the complex community interventions that the projects represent has meant using a multiplicity of quantitative and qualitative methods to obtain as rich a picture as possible of the effects of the intervention. Given that many of the effects of the projects are long term and the difficulty of not being able to isolate all the variables that impinge on the projects, the extensive evidence base already established of the recognised effects of increasing physical activity on improved health outcomes is used as an overall proxy of impact within interventions in accordance with DH (2002) guidance;

"Sometimes it is not possible to measure a health outcome directly. Death rates from heart disease are a poor measure of the success of a local strategy to encourage people to take exercise… However, it is known that lack of exercise is linked to a higher risk of heart disease. It is sufficient therefore at a local level to know that more people are putting themselves into a lower risk category by taking exercise more often."

The research was therefore concerned to determine the immediate and intermediate outcomes and impact from the interventions at a number of levels through a variety of research methods. The

emphasis has also been to understand through process evaluation not just what outcomes there have been, but to understand the factors that surround the *how* and *why* of projects, what are the structures, processes and delivery systems of the intervention and their enablers and barriers to change? Each of the projects has therefore been evaluated to understand how it provides different approaches and environments that can contribute to change; what determines the impact and outcomes that it affects and what does this indicate for future sustainability.

The research methodology has particularly used a number of participatory approaches to understand the complexity of the projects and its outcomes, which has included observation of activities, face-to-face discussions with service providers and delivery staff and semi-structured interviews with service users. Attendance of meetings and workshops as team meetings of the over 45's Activators, the Walks Forum, the Physical Activity Network and county wide workshops for Fit Kids and Exercise Referral have been used to raise and debate emerging issues from the research. All 7 districts have been visited to observe and analyse the often-diverse nature of the projects, this has included following the rapid development of programmes as in the case of Fit Kids. Samples of participants were interviewed from each intervention, together with all main stakeholders in service delivery. Participants involved in the research process were selected mainly through convenience sampling, but were intended to provide as wide a range as possible in terms of rural and urban contexts, established and new groups and programmes, participant profiles and service delivery.

Interviews with service providers have identified the various strategies, structures and approaches employed to reach target beneficiaries and break down barriers to access and participation. Semi-structured interviews with service users have explored not only the experience and impact of the projects, but also their relationship to other lifestyle information and determinants of health outcomes and physical activity. Observation and participation in activities has in many cases, as in Walking for Health (WfH) and Vitality, meant that the Researcher has literally joined in with the activity, which has provided the opportunity to gain a powerful understanding of the 'hook' and impact of the projects. Watching the buzz of a walking group even in pouring rain and snow conveyed much more than can be necessarily captured by monitoring processes, such as inter-action, environment and role of 'community'. Observation of all projects across the 7 districts provided a particular opportunity to explore more deeply why certain activities, locations and set up may be more applicable to market segments and community groups and the impact that they have.

All report documents and data that could be made available for the research were also analysed, this has included data collated on a quarterly basis by the Lincolnshire Sports Partnership together with any extra quantitative data and reviews undertaken by individual projects to assess activity and outcomes. Data gaps in the structured programmes such as Exercise Referral have been the subject of review with the resultant Exercise Referral audit providing a rich source of data to analyse and isolate the variables that influence participation and completion and outcomes. In addition the Lincoln Exercise Referral team have gathered data for the researcher on participant's attitudes to paying for the intervention, to add to the variable effects that this has. In reference to Health Walks and Fit Kids the researcher has equally used the resource of Natural England's Walking for Health (WfH) database and the data from the Fit Kids toolkit to review trends and impact.

Within the less structured community based programmes, where participants can attend on an ad hoc basis and hence the opportunity for gathering robust data is more challenging, the researcher has undertaken exercise diaries and physical activity surveys amongst a sample of those involved. Exercise diaries were therefore undertaken by participants in over 45's Activities including New Age Kurling, Health Walks and Vitality daily for a period of a week, in which they recorded what effect and impact both the projects and activity had on their lives. In particular it collated data that is often intangible and immeasurable in monitoring processes, in allowing the analysis and building

up of evidence of how projects have much more long term, inter-related and holistic effects beyond their individual boundaries and systems. It has for example demonstrated how confidence in one particular intervention has encouraged participants to involve themselves in other sports or do more walking on their own, data that is often hidden and not captured by routine monitoring. The physical activity surveys undertaken by a sample of walking, over 45's and kurling groups has complemented the diaries and gathered increasing evidence on the rationale for increasing participation as well as the value and impact of projects both in the short and long term.

Given the number of projects involved and the many activities that they encompass across Lincolnshire analysis of the interventions has been concentrated at a county rather than district level, to determine the thematic evidence that emerges by cross-referencing the data that has arisen both in terms of unity of results and impact and where exceptions occur. This has provided an overall framework of evaluation both within and across the projects, in which the widest 'lessons' and impact of the projects can be determined which forms the basis of the remaining report. As with all research in doing the evaluation more questions have been raised for continuing and future research.

The report is divided into six sections on each project with those that have a national evidence base and have been established longest in Lincolnshire as Health Walks and Exercise Referral first discussed, followed by Fit Kids which like Exercise Referral has a structured 12 week programme. Vitality, the over 45's Activators project and the New Age Kurling and New Age Bowls (Inclusion) Project although based in national issues are more 'flexible' community interventions to provide local solutions to increasing physical activity amongst both the older segments of the population and those with particular needs. The over 45's Activators project and Inclusion project representing an opportunity to explore additionally the impact of short-term funded projects. A summary on the themes and impact emerging from the six projects is reflected on at the end of the report.

2. LINCOLNSHIRE WALKING FOR HEALTH SCHEMES

2.1 Overview

2.1.1 Context

As the 'Be Active, Be Healthy' (2009) inquiry emphasised '*Walking is the most popular recreational activity for adults'* as evidenced by Sport England's Active People Survey. Moreover, that guidance from NICE recommends that older people should be offered a range of walking schemes of low to moderate intensity to improve mental well-being. Indeed that the intention of government policy at that particular point was to 'scope a significant expansion of the Walking the Way to Health Scheme' led by Natural England and the British Heart Foundation.

The Walking for Health Scheme (WfH) being based on an evidence base that increasingly demonstrates the impact that walking can have both as a way of increasing routine activity in everyday lives and help to counteract physical and psychosocial health problems. Studies such as that of Manson et al (1999) have established that women who walk four hours a week have a 35% reduction in risk of heart disease. The Diabetes Research Group (DPPRG: 2002) equally found that changes in diet and daily walking were found to be more effective in treating type 2 diabetes, than medication (58% v 31%). The benefits on mental well-being being also well documented, Peacock et al (2007) found in their study of comparing indoor with outdoor exercise that exercising outdoors in a green environment was more effective in enhancing mood and improving self esteem to undertaking exercise indoors. Mind (2007) therefore advocates 'Ecotherapy - the green agenda for mental health' as a '*clinically valid treatment option for mental distress*' including walking groups. This is seen to provide a much more cost effective and natural approach to conditions such as depression, than the use of measures such as increasing antidepressants (40% over the last 4 years), which as seen in media reports on April 7th are a cause of concern and scrutiny as to their effectiveness and role.

Walking is therefore described by the LgiU (2010) as the '*easiest, most accessible, cost effective and enjoyable way for most people to increase their physical activity'*. In particular that as walking for health schemes can have a QUALY cost below £100 they are an extremely cost effective preventative health intervention, *'the costs to PCTs of even the most expensive programme is likely to be as little as 84 pence per 'dose' for every walk. This compares very favourably to the cost of prescribing drugs'*. It has been further calculated by Natural England that for every £1 of costs involved in setting up, supporting and developing walks there are £7 benefits and return of investment and that for every 60 men participating in walks one life is 'saved' from a premature death.

2.1.2 Funding and Development of Projects

The development of Health Walks in Lincolnshire's seven districts is therefore based upon evidence of the positive benefits of increasing walking and walking groups within the county. It is also rooted in the processes and structures that have been provided by the Walking for Health Initiative and Natural England, with their support for co-ordinators, the training of walk leaders and provision of insurance, as well as a database to record all the details of walks undertaken, whilst allowing for local differences. Funding for the development and co-ordination of groups at a local level being supplied both through the Choosing Health programme and a further non-recurrent £140,000 funding being awarded by the Health and Wellbeing Fund for delivery by the districts over the period 2009-11. At the time of writing NHS Lincolnshire has agreed to continue commissioning the

work with contracts until September 2011 with permission from the Health and Wellbeing Fund to use the under spend in South Kesteven's budget to share amongst the districts until June 2011.

The uplift from the Health and Wellbeing Fund in addition to the Choosing Health funds was considered to have had a notable effect particularly in helping develop, train and sustain new walking groups in further areas of the districts. This is reflected in the expansion of participants, throughput, walk sites and partners in the district monitoring figures for 2009-2011 contained in Appendix 1: Part 1 in which targets in all areas have been considerably surpassed.

West Lindsey have used the additional funding to expand the walking schemes from its concentration on Gainsborough and to fund a full rather than part time co-ordinator, with walking schemes and co-ordination now in Caistor, Market Rasen and Saxilby. These groups account for just under half of the total walking numbers for the West Lindsey walking schemes. South Holland similarly has used the extra funding to develop, train and sustain walking groups in the two further towns of Holbeach and Long Sutton, with the support of Leisure Connection to enable further expansion including a district walking forum. North Kesteven, in setting up and re-establishing co-ordination within the district, have used the uplift to organise and start up a new health walk group in Metheringham which is due to be launched on 6th May 2011.

East Lindsey and Boston have equally used the funding uplift to provide more walking sites and consequently opportunities for involvement. For East Lindsey this has meant, for example, providing 7 volunteer walk leader courses, with a 5 volunteer walk leaders leading a regular 3 walks a week. Lincoln given its particular difficulty in attracting walkers which will be discussed further in Section 2.5.3 has used the uplift mainly towards advertising in the Lincolnshire Echo and Target newspaper to seek to gain as much engagement and reach as wide an audience as possible.

2.1.3 Countywide Approach?

Developing a countywide approach through funding and co-ordinating the walks through the direction of Lincolnshire Sports Partnership and NHS Lincolnshire and the district co-ordinators, has meant that districts and their walking groups, which formerly were individual and largely volunteer-run, have been brought together to become part of a funded partnership project. It is through this partnership that walking groups have been enabled to be more professional and reach more participants within a more centralised direction, policy, and targets. As a particular example, West Lindsey health walks (set up in 2003 as a volunteer led scheme) has as seen developed from groups centred around Gainsborough to a district wide and co-ordinated scheme, benefiting from training and support in advertising though 'glossy' walks programmes and mapping of walks for more independent walkers.

Moreover, workshops led by the Lincolnshire Sports Partnership and NHS Lincolnshire, together with funding for the Walks Forum managed until March 2011 by Groundwork Lincolnshire, has provided a regular forum for discussion and sharing of good practice and been of benefit to those co-ordinators just starting or re-starting groups in their district. The co-ordinator for North Kesteven, for example, found that the resource of the Walks Forum and other districts at workshops was invaluable in seeking to develop the scheme when first starting the post.

The particular strength of the Walks Forum has been that it has provided a partnership and infrastructure for collaboration with wider stakeholders and agencies that impact on walking within Lincolnshire, as Lincolnshire County Council, Natural England, the Ramblers Association and organisers of the Wolds Walking Festival. Tackling common problems, such as public rights of way and access, as much as how to increase capacity and participation in walking being issues that are

mutual to publicly supported and independent walking groups. As stated earlier walking is the most popular form of recreation and walkers can and do move between organised health walks and independent walking as provided by organisations, such as the ramblers, or using walk leaflets as a guide, so increasing partnerships at a county level is central to increasing opportunities for participation in walking at many levels and sharing good practice.

The value of the Forum has been recognised in its county wide scope and partnerships and it will continue to operate, in the more cost effective way of individual districts taking turns in being asked to host the meetings and the Lincolnshire Sports Partnership and NHS Lincolnshire taking over the organisation and reporting of meetings. There is however an expressed need to move the forum to have a more strategic lead and role in order that it should seek to more inform policy and practice within the county, given that there is much more that can be derived from the capacity of the partnership. That it could also inform more by creating a generic website of walking events probably using the Lincolnshire County Council website and possibly have ‘development days’, to instigate a more pro-active approach. So that overall its function as an organisation is to more visibly direct the strategy for walking within Lincolnshire.

2.2 Sustainability

2.2.1 Role of Walk Leaders and Co-ordinators

At the centre of the cost effectiveness and development of walking groups is the role of the volunteer as much as the co-ordinator, for it on them that rests the continued growth and development of walk sites and groups, through taking the role of walk leader or helper. The Countryside Agency (2005) calculating that volunteer time in schemes can be in excess of 1,500 hours per year in leading walks, raising awareness and helping develop schemes.

Indeed the strength of districts such as West Lindsey, South Holland, South Kesteven and Boston is that they have very strong networks of volunteers who have been able to take on responsibility for a group, allowing the co-ordinator to concentrate on setting up further groups and identify and train other walk leaders. In the Natural England WfH database, what is therefore striking when comparing the districts is not only the contrast in the number of walk leaders but the frequency of how often they take part and the amount of hours that some of them are involved with the groups. Within Boston, for example, two walk leaders record the following involvement for 2010-11:

Walks	Hours
67	71.75
32	33.75

This contrasts with districts, such as East Lindsey and Lincoln where walks have tended to be led by co-ordinators and in East Lindsey’s case partnership also with the over 45’s activator, now the co-ordinator for that area, although both districts have fostered an increase in walk leaders. The patterns surrounding this are further complex, thereby making them harder to interpret and define, given that Lincoln, for example, may have much few walk leaders but their participation has allowed for regular weekly walks at Hartsholme Country Park, whilst other more individual and one off walks are undertaken by co-ordinators. Three walk leaders having taken part over 2010-11 as follows:

Walks	Hours
42	42
56	56
27	27

The issue of walk leaders is therefore not just how many a scheme has, but how often they in effect do take part, a common problem across the county being that many receive training, but do not necessarily go on to lead groups or on an infrequent basis for various practical reasons.

The participation of volunteers however remains vital, not only to increase walking sites, but the variability of walks that can be offered. Having 2 walk leaders within a group, for instance, allows participants to take two routes within a 'walk' to reflect what may be the varying levels of stamina and fitness within the group.

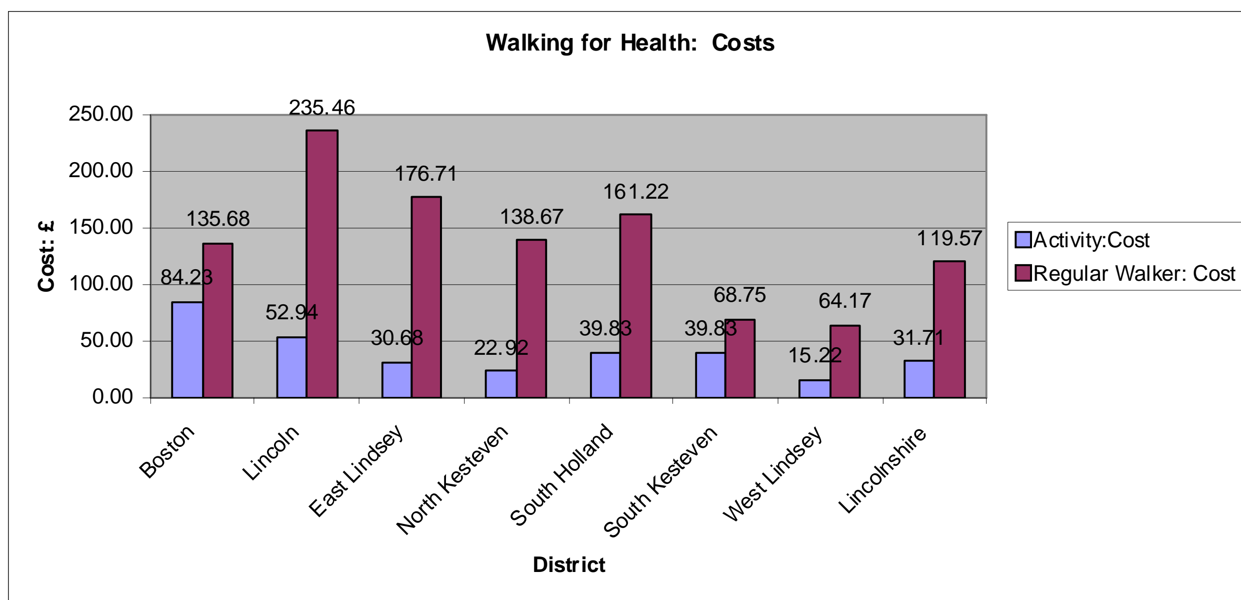
Mostly volunteers are retired as a typical walk leader demonstrated; *'I have retired from teaching and this is something that I can do, get involved in. We just have to gather a few statistics and there are no meetings, so that is goo*d'. However, walk leaders do include wheelchair users and people with learning difficulties who also enjoy and have increased confidence from leading groups. The role of the walk leader being seen by Natural England (2009) as particularly important in welcoming and integrating new walkers into the group and preventing cliques developing that provided a barrier to new members joining.

In areas where co-ordinators have not been in posts for periods (as in South Kesteven, South Holland and North Kesteven) the robustness of the walk leaders and volunteers in a group have enabled its continuance. However, as will be later discussed without the strategy and support of district co-ordinators the gaps in health walks is not necessarily addressed, through up new walks and engaging certain groups. It is also as considered by the Countryside Agency (2005) that the *'amount of support that is required'* to keep walk leaders *'involved and interested should not be underestimated'.*

2.2.2 Costings

Figure 2.1 overleaf indicates the very different costs that districts have in providing walks. This reflects the variety of ways in which the walks are delivered, the use of volunteers to lead regular walks and the presence of established walking groups within a district are all important factors in cost effectiveness. West Lindsey, for example, being both dependent on well established groups and developing a strong network of volunteers to undertake walks demonstrates how this is an important factor in maintaining low costs. Equally central is that the cost of the service is dependent upon the relationship between supply and demand, in cases where walks do not attract high numbers, or where walks are being set up then the individual cost of the walk will be particularly high in relation to those where larger numbers attend, as in the case of Lincoln. It might however be that in order to attract walkers to attend a new walk a higher cost per walker is required, in order to determine where capacity exists for a viable walk. As an intervention with an average cost of £31 per participant a year and a nominal cost of £120 per annum for those undertaking 'regular' walking this nevertheless remains a particularly cost effective intervention when compared with other health promotion programmes. However, as districts move to greater stability in their development and funding becomes increasingly an issue, this variety of costs will require much more direct managing and review by Lincolnshire NHS and the LSP as part of their co-ordination and management role.

Figure 2.1: Activity and Regular Walker Costs by District 2009-10



Source: NHS Lincolnshire – Walks Workshop 2010

2.3 Motivation for Walking – Service Characteristics

Through the walking survey, exercise diaries, observation and discussions with walking groups consistent reasons to participate in walking groups and continue to undertake regular walking emerged. These were considered to be the 'fun' element of the exercise, the support and interaction of the group, the preference for 'green' and outdoor activity and the desire to improve health and physical levels of fitness. These are factors that have equally been identified in national research, as Natural England's (2009) review of motivation to take part and Ashley and Bartlett (2001) who also found that physical fitness, the environment and in particular 'social contact' were the three main elements. Within the sample of the survey the inter-relation of these reasons is depicted in the following response:

Enjoyable physical activity to engage in	82%
Health reasons	67%
Social reasons	64%
More leisure time (retirement)	25%

2.3.1 Natural Environment

Of all the schemes evaluated walking represents the 'easiest' for participants to attend. Given that there is generally no cost to take part, such as requiring special sports equipment or clothes, except for possible travelling costs to walks around a community, and a decent pair of shoes or boots for the wintertime. Equally, there is no required commitment to attend for a specific programme, so that participants can fit it around their lifestyle and at their convenience, 'turning up' when they wanted. It is also an activity with which they can understand, not something that they were unsure of.

One of the main factors and benefits cited for taking part in walks rather than undertaking exercise in a gym or indoor environment was their preference for green exercise. Indeed, when reviewing

exercise diaries, the survey and discussions a continuing theme and response for what was enjoyable and beneficial from walking was 'being outside in fresh air':

- '*Outdoors feeling free ... Learning more about flora and fauna from sightings. Feeling the breeze and smelling the fresh air'*
- *'I just enjoy walking on the river bank even in the cold'*
- *'Peace and tranquillity. Striving for great inner core strength. Feeling grounded and practical. Good to exercise without travelling by car to venue – love the results!'*
- *'Great to walk in the warm sunshine'*
- *'It is better to be out in the fresh air exercising than in a gym where you are on a treadmill and don't see anything – here you see the countryside as well and chat and catch up with what everyone is doing and meet new friends. You see wildlife and trees and you wouldn't get that in a gym'*

In urban areas the routing of walks in areas that included parks and river banks was an environmental incentive, as much as the more rural Lincolnshire locations. It was often also about discovering new things about an area even if they had lived there for a long time by varying routes:

'You see so many other parts of Boston that you haven't seen before and I've lived here all my life – you forget how pretty it is'

Health walks were equally seen to provide an opportunity to walk further and in areas that participants would not normally walk on their own for concerns about safety, both in relation to personal threat or having an accident with no-one there to help, which has been found to be one of the main barriers to walking alone, (Countryside Agency, 2005)

- *'Feel safer walking with other people – wouldn't do it on my own'*
- *'I wouldn't walk out here in fields like this without the group'*
- *'As a woman you don't feel safe walking unless it is in central areas, you wouldn't walk around the areas that we do in the countryside. Also if you hurt yourself or anything like that there are people with you to help, which also reassures you'*

2.3.2 Social Networks

As found in national evaluation by Oxford Brookes University (2005), the Countryside Agency (2005), Walk 4 Health (2006) and Natural England (2009) the key factor in adherence to Lincolnshire's Health Walk schemes derive from the opportunity to socialise and be part of a group. Indeed walk co-ordinators have capitalised on this by arranging in many cases that the walk starts and/or ends up at a café or community venue, so that the social rapport of the group is developed often over shared refreshments at the end of the walk, thereby building up community cohesion and developing a sense of place. Boston Health Walks flyers, for example, advertise by stating 'come and walk with our social walking group' with the provision of free refreshments at a community venue at the end of each walk. From observation and self-reporting the social benefits of the walks is valued by most participants with often a 'buzz' of communication and inter-action surrounding both the walk and any refreshments afterwards, so that one participant described it as 'not so much a walk as a social gathering'. New residents to a community therefore commented that they used the walks as a way of meeting people as well as getting exercise: 'I joined Boston health walks 18 months ago and enjoy it very much meeting different people and the general spirit we have and have met new people along the way. Being a newcomer in Boston this has helped me to get to know the community'.

From the walking groups some of the many spin offs include regular summer picnics, barbecues, Christmas dinners and celebrations, attending Tea dances, walking trips to France and mini bus walking trips to other areas. Some groups also recorded that several of them would meet up for further walks in the summer sharing cars where possible to walk in different local areas and sharing a pub lunch afterwards.

The groups can support particularly new walkers to walk further and faster, as well as providing an exercise that can be undertaken with conversation and laughter by those taking part. Respondents therefore in response to what they enjoyed most referred frequently to the intertwined social benefits of walking and how it allowed them to do much more than they often realised:

- *'Enjoyable company and conversation while being out in the fresh air'*
- *'Company and good walking'*
- *Meeting people and having a laugh'*
- *'Nice walk, good weather and social event'*
- *'Meeting new friends great and warm sunshine'*
- *'The social meetings encourages me to partake'*
- *'Volunteer walk leader with a Friday group walking with other people is a much nicer experience, usually walk around 3 or 4 miles then have social time after'*
- '*Joining a group with a varied degree of fitness encourages people to keep going'*
- *'Because you are going along and chattering you don't notice how much you are walking and you walk far more than you would on your own as you have someone to talk to and you don't realise how far you've walked. Whereas if you went on a 4 or 5 mile walk on your own it would seem really long'*

Given that a large proportion of those walking are older participants who are often widowed and living on their own in retirement, many expressed the view that it aided their general well being and reduced social isolation by taking part in the walks; *'I live on my own and if I miss it one week someone will say 'Where were you last week and it is very reassuring'.*

This 'loyalty' to the group means that as found by Natural England (2009) often walkers will turn up to walk when they might have preferred to stay at home on days observed when it is was raining hard and even snowing, with comments that they did not want to 'let down' the walk leader. This Natural England (2009) consider may particularly reflect the age profile of the walkers and that they are 'part of a generation where it is less acceptable to let others down'. The net effect however is to provide and create a regular structure to activity within the week, with days designated as 'walk days' and for some who are particularly isolated a reason to 'get up and out': *'It forces you to exercise. Otherwise you would say I really need to do the washing or sort out the bedroom – but instead you say no today is walk day and you get out and do it. You make the time for walking that you wouldn't otherwise do'.*

2.4 Impact

It is not surprising given the findings from the qualitative data of the reasons and motivation for taking part in the walks and its building reliance on group dynamics and regular participation that the project's monitoring data, detailed in Appendix 1: Part 1 and that on the Natural England WfH database should reflect a significant rise in walks activity. The effect of the project in increasing participation being demonstrated most vividly in the following table and graph supplied by Natural England for data from 2008-11.

Figure 2: 2 Increased Participation in Walkers in Lincolnshire – 2009-11

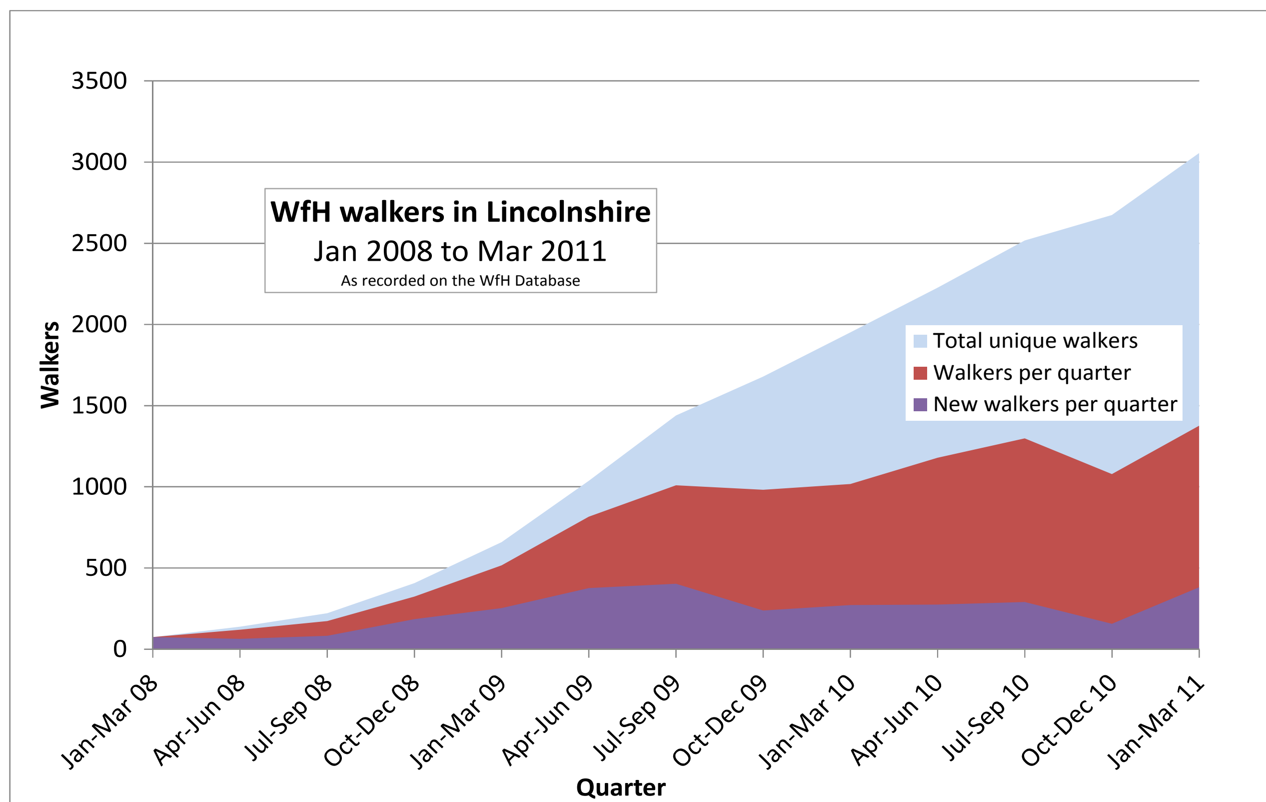


Table 2.1: Quarterly Activity and Profile of Lincolnshire Walkers 2008-11

Quarter	Walkers per quarter	New walkers per quarter	Total unique walkers
Jan-Mar 08	75	75	75
Apr-Jun 08	120	64	139
Jul-Sep 08	173	83	222
Oct-Dec 08	324	185	407
Jan-Mar 09	517	253	660
Apr-Jun 09	816	377	1037
Jul-Sep 09	1010	403	1440
Oct-Dec 09	982	239	1679
Jan-Mar 10	1018	272	1951
Apr-Jun 10	1179	275	2226
Jul-Sep 10	1299	291	2517
Oct-Dec 10	1079	157	2674
Jan-Mar 11	1376	382	3056

To complement data collated through the WfH website and quarterly monitoring by the Lincolnshire Sports Partnership and to analyse impact in its widest effect evidence of self-reported changes was gathered through the use of group and individual interviews, surveys and exercise diaries. These sought to analyse more thoroughly the dynamics of active living and recreation, the determinants of increasing participation and physical activity and the inter-related outcomes on physical, mental and community health profiles. The analysis for the walks survey from a sample of 31 participants is fully detailed in Appendix 1: Part 3.

2.4.1 Physical Activity and Health

Participation

The walking survey found that for the 31 who completed the questionnaire health walks was a regular part of their routine with 91% stating that they took part at least once a week and 30% for 2 days, reinforcing that routine is in itself part of the appeal for those participating, as evidenced in the following walking exercise diary entries:

- *'Morning stretch 45 minutes, structured health walk every Wednesday 1 hour and 15 minutes'*
- *'1 hour and 30 minutes walking morning group and 1 hr 50 minutes walking afternoon group'*
- *'Group walking approx 1 hour and 45 minutes and 20 minutes walk to meeting point, 20 minute walk to Drs'*

Indeed exercise diaries not just for the walks, but those for New Age Kurling and over 45's participants have recorded very high levels of walking within daily activity, and that it represents the most habitual form of activity.

The role of walking schemes is therefore providing additional and consistent ways of taking part in exercise which in itself contributes to the high level of active living and recreation reported in the survey and exercise diaries. The sample of thirty within the exercise diary reporting that 88% of them undertook at least 30 minutes of activity over 5 days and 44% on 7 days. They also recorded an average of 13 hours of activity per week, ranging from 4 hours and 40 minutes to 30hours, which demonstrates the level of activity for a sample with an average age of 65 and a range of ages from 51-76. The role of walking in physical activity routines was reinforced by the survey in which 71% reported walking at least 10 minutes a day and 61% doing at least 30 minutes of activity over 5 days, for a sample with an age range of 25 – 85 years, a mean age of 60 and a median of 62 years.

A large percentage of those surveyed (78%) reported that being part of the Health Walks Scheme had aided them to be more active, which was also supported by comments and replies in the exercise diary. The reasons given for this were mainly the increased incentive to exercise and the benefits that it provided, including walking more in daily life or with other groups, based as seen in 2.3 on the service characteristics of the project that engender motivation through providing safe, social and routine ways to walk:

- *Walk further and faster*
- *Encouraged me to walk every week*
- *New outlet for walking and giving incentive to do so*
- *More happy to go for a walk if I have some spare time*
- *Walking in weather conditions I perhaps would not have previously walked in*
- *I try to be less reliant on the car and walk instead to the shops*
- *Gives me the incentive to get out and about*
- *Given the opportunity to exercise at winter time when other activities such as gardening are not possible*
- *Since joining walking group I try to do exercise everyday*
- *Once you have felt the benefit of exercise, this motivates you to do more*
- *Structured walking ensures that exercise is entered into and increases stamina for all other activities*

Whilst the main pattern seems to be that participation in walking groups stimulates more walking itself in terms of regularity, distance and speed, including taking part in further walking groups, 48% also stated that participation in walking groups had encouraged them to take part in other forms of physical activity, as well as supporting more active living with everyday tasks, such as housework and gardening. Examples given include swimming, cycling, Wii fit, keep fit classes, line dancing and gentle circuits and aerobics as one respondent related; '*It started with 1.5 mile walk and have progressed to 6 mile walk now to a gentle circuit class once a week. Visit the gym 2 or 3 times a week and am about to start a core back class to help make my back stronger*'.

Physical Health

Participant's responses to questions in discussion, the survey and exercise diary on the self-reported effects of taking part in a walking group was generally that it had a positive effect on their health, with 64% stating in the survey that it had improved an aspect of their health and/or health condition. This accords with surveys taken by individual districts, as North Kesteven where 60% also reported that it had benefits for health. Besides increased levels of fitness and general well being, conditions that participants considered it helped included weight loss, balance and deportment, the reducing of medication for conditions such as blood pressure, help with breathing and musculoskeletal problems and the aiding of recovery post operation:

- *'It seems to make you feel better inside – more healthy'*
- *'General fitness and feeling of well being'*
- *'Feel fitter – not as tired'*
- *'More stamina and improved lung power for asthma condition'*
- *'Just look at me I used to be 100 kilos – now I am 82 kilos'*
- *'Has helped with previous back pain and flexibility of joints'*
- *'Reduced medication, reduced blood pressure'*
- '*Has improved my lower back problems. Don't take strong pain killers any more. Has helped towards me losing 2 stone in weight. I have also reduced my blood pressure medication'*
- '*Helped me to meet new friends and helped me get more strength and aided my post op recovery'*

2.4.2 Mental Health and Social Capital

The effect of physical activity on mental well being is already well evidenced, MIND, for example, found in their survey that 83% of people with mental health problems used physical activity to help 'lift their mood', with walking in the countryside and its combination of fresh air and nature 'shown to improve mood and reduce stress' (WHI). Given that 64% in the survey also stated that they were participating in the scheme for social reasons and the emphasis as seen in 2.3.2 on the social and community nature of groups, it is not unexpected that may equally reported improved outcomes for mental well being:

'Keeps me stable and peaceful I am a carer. Life can be difficult'

'Gives me a brighter outlook on life'

'*The community walk generates a very therapeutic element amongst the walkers. Talking among the walkers and mixing with others who have health issues makes you want to be alive and stay healthy'*

'When you have depression you just want to hide yourself away, so these walks are really good for getting you out and talking. It is the inter-personal, the social side of the walks that is really important to me …'

'I was referred to go and do walks as I had a nervous breakdown and had become very inward-everything was coming in on me. At first I found it difficult I felt a bit like a 'duck out of water' particularly as I had not done a lot of walking and there weren't many men in the group. But the group was very friendly and helped me and I am now looking forward to the walks every week – it brightens me as well as being good for exercise.'

It is therefore not unexpected that in respect of the physical and psychosocial effects considered to result from participation in Health Walks that 87% considered that it would have a long-term impact on health and life outcomes. For those both in middle and older age it was seen as part of a strategy to both prolong life and improve its quality in terms of being active and mobile, less subject to pain and degenerative health conditions and reducing social isolation and stress.

- *'Helped my general fitness and well being and as part of a weight loss plan will improve my health for the future ' (50 year old male)*
- *'Hope to keep active as I get older and enjoy gardening and to be free from aches and pains' (58 year old female)*
- *'Better mobility raising of heartbeat to keep heart healthy/strong, new friendships/laughter' (61 year old female)*
- *'Hopefully it will prolong my active life by exercising my heart, lungs, muscles etc. The social side of the health walks should not be under-estimated' (66 year old male)*
- *'Hopefully keeping fitter in old age' (85 year old female)*

2.5 Challenges Present and Future Development

Successful as Health Walks has been as a project, in terms of widening participation and providing a model of delivery that can be both cost effective and sustainable, rooted as it is in community and volunteering, issues still remain about the strategy of the programme particularly regarding widening participation and the effect that future funding issues may have on partnerships and support for development.

2.5.1 Evaluation

Monitoring and targets have formerly been dependent on proxy measures such as numbers of participants and throughput. These can as seen in previous tables and graphs and that found in Appendix 1: Part 3 indicate both trends and impact, but do not in themselves provide the wider indicators of the effect of the project. Most districts have therefore complemented this with the collating of case studies and surveys to obtain feedback both on outcomes and delivery of the service, such as West Lindsey's regular 'Voice of The Walker' survey.

Whilst co-ordinators had been inputting data onto the Natural England WfH database, following its reform and provision of more valuable monitoring functions it is now being used by all co-ordinators to register their quarterly data. The use of the Natural England WfH database provides a richer source of data, particularly in terms of indicators such as new registered walkers and walks hours, gender and age of walkers by which the project and districts can be compared and indicate the gaps that still exist in walks profiles. This also seeks to overcome the difficulty previously in the project where districts have been reporting very differently. Boston, for example, have only recorded new walkers in their figures, whilst West Lindsey and South Holland have reported all

their active walkers all of which has had an effect on figures counted and targets met. The problem has also been that in areas where co-ordinators have been absent for a while as in the case of South Kesteven, North Kesteven and South Holland established groups may continue to flourish, but the data is not necessarily collated and analysed, so that patterns of participation are distorted both when it is not collated and when it is added to the database. There are still problems in reconciling the figures between district monitoring figures and those obtained from the WfH database, but these are teething problems to be overcome.

The present form completed by walkers on the WfH scheme does also indicate the nature of health conditions as illustrated in Appendix 1: Part 2 covering April 2009 - September 2010. What it indicates is that those with CHD related conditions are most represented in the groups and that they are the most regular in walking, even taking into account the effect of thriving active groups as the heart support walking group in East Lindsey within the figures. However, a difficulty in interpreting from the data is that it is restricted to those conditions noted within the database and participant's self reporting. Participants may, for example, have musculoskeletal conditions that they do not recognise as either a 'bones' or 'balance issue', nor does it record mental health problems, all of which have arisen in case studies and the researchers, surveys, exercise diaries, observations and interviews.

Ultimately the long-term tracking of walking groups and its participants would be the most salient demonstration of effect, but given that a walking group is not a static organisation with movement in and out of the group this would be difficult to effect. Except where the walks are part of a structured programme such as an exercise referral scheme the difficulty to develop any more formal evaluation is that people can participate how and when they like and variables both internal and external to the walk scheme cannot be controlled. Indeed, given that the flexibility of the walk schemes is one of their main advantages, to impose a very rigorous evaluation scheme could be counter productive given as the Countryside Agency (2005) have argued the enjoyment of the walk and continued adherence often rests on it being as 'light touch' as possible with regard to evaluation; 'participants tend to be reluctant to fill out lengthy forms and just want to get on with the walk'. Any development of evaluation besides the WfH database therefore needs to take into account what is the most realistic and effective way of capturing the more tangible outcomes of the walking schemes, with minimal effect on the process itself.

2.5.2 Engagement – Widening Participation

One of the particular issues for the future expansion of community health walks is the implications of extending and changing the typical profile and characteristics of most walking schemes. Data from the Natural England WfH database has consistently detailed how a large proportion of participants are both women and a mostly older age group. In 2010-11 data from the WfH website details that 79% of the walkers in Lincolnshire were over 55 and 67% over 65. Female participants accounting for nearly 70% of walkers in 2010-11, of 1530 compared to 659 female. A participant profile that is equally reflected at a national level, in studies by Oxford Brookes University (2005) and surveys of local schemes by the Countryside Agency (2005).

Research by Natural England (2009) and Walk 4 Health (2006) has indicated that the 'strong sense of belonging' within walking groups and their 'close-knit' nature, which acts to foster regular walking, could equally 'deter new people from joining'. Indeed, Walk 4 Health (2006) concluded that 'group dynamics' were barriers to encouraging new walkers, with the need for more effort directed at engaging younger people and those from more diverse backgrounds. This has not been evidenced in any of the research undertaken, either through observation or talks with participants, rather that having a nucleus of regular participants within a group generally allowed them to

welcome new members and indeed as seen that many commented that walking groups had been a way of getting to know people and find friends when moving to a new area.

The difficulty as Natural England (2009) have considered is *'by changing the profile of WfH participants there could be a possibility of alienating the existing participants. The reason many of them come is because they want to mix with like-minded people of a similar age*'. Further as Oxford Brookes University study (2005) have argued and this evaluation has found, to be providing a source of regular physical activity that benefits a particular section of the population is not a negative finding, given that *'as they (older women) frequently live alone, may have increased health risks and are at increased risk of becoming socially isolated, without the social support, protection and encouragement of walking groups might otherwise find it difficult to walk regularly… Thus a key benefit of these led walk schemes appears to be maintaining physical activity levels in people who find it difficult to do so alone.*'

2.5.3 Expanding Participation Profile

Increasing the participation of younger families and people and the earlier middle aged is nevertheless important given that if patterns of behaviour for walking are set at an earlier age they are more likely to be continued throughout different ages. Working itself is often much more sedentary with limited opportunities to exercise during the working week.

Initiatives to attract younger people into walks have therefore included more working with partnerships such as Homestart and Surestart to undertake pram walks, toddler strolls and 'bug walks' as in West Lindsey. Walking schemes programmes within most districts have also been extended to include some weekend and summer evening walks to appeal to those who are not able to get to the walks during the day.

Lincoln, for example, has a broad range of 10 walks offered in its summer walking programme to be as inclusive as possible with a range of walks from 1.5 miles to 6 miles on weekdays and walks from various parts of the city every weekend. It is also seeking to engage those working in 'Walk to Work Week' of the 9th - 13th May, with 5 lunchtime walks and four evening walks. It has also started walks on the University of Lincoln campus to particularly attract a younger profile of participant. Present statistics concerning the age ranges for Lincoln already demonstrating a younger age profile than the district profile with 15.1% being less than 25, 25% under 35, 31% under 45 and 46% under 55. Across the district increasing partnerships with other groups such as the RSPB and the development of more themed walks such as wildlife or heritage are all seen as ways to attract more diverse participants. Others have incorporated different elements to walking such as Nordic walking in West Lindsey, East Lindsey and Boston, which is seen to provide a more challenging image to younger participants. Grantham has similarly involved youth charity groups and Grantham College to get a younger and more diverse range of people involved in walking and realising its value and that of the environment, as indicated in the following pictures of Grantham Forum Charity Walk and a Grantham College Walk overleaf.

Source: South Kesteven Walk Co-ordinator

It is important to attract new walkers as much as existing walkers and therefore it is interesting to reflect that whilst districts such as Lincoln have struggled to set up walking groups, their approach in providing a range of walks is allowing for a high percentage of new walkers to take part, even if they are not regular walkers as detailed in Table 2. The data would equally seem to indicate that where there has been an absence of a co-ordinator and support (as in North Kesteven) that the presence of a co-ordinator now in these areas has meant that a number of new walkers are being brought in with the setting up of new walks. In contrast more established schemes such as South Kesteven, Boston and West Lindsey record a consistently lower percentage of new walkers.

Table 2: Percentage of New Walkers Lincolnshire 2009-11

2010-11	Total Registered Walkers	Total New Walkers	% New
Boston	376	159	42%
East Lindsey	301	151	50%
North Kesteven	174	125	72%
South Kesteven	227	69	30%
South Holland	432	275	64%
City of Lincoln	239	183	77%
West Lindsey	440	143	33%
Total	***2189***	***1105***	***50%***
2009-10	1783	1291	72%
2009-11	2902	2396	83%

April-June 2010	Total Registered Walkers	Total New Walkers	% New
Boston	227	54	24%
East Lindsey	168	35	21%
North Kesteven	80	33	41%
South Kesteven	164	19	12%
South Holland	155	48	31%
City of Lincoln	88	44	50%
West Lindsey	297	42	14%
Total	***1179***	***275***	***23%***

July-September 2010	Total Registered Walkers	Total New Walkers	% New
Boston	231	38	16%
East Lindsey	173	26	15%
North Kesteven	96	35	36%
South Kesteven	151	7	5%
South Holland	275	107	39%
City of Lincoln	101	54	53%
West Lindsey	272	24	9%
Total	***1299***	***291***	***22%***

October-December 2010	Total Registered Walkers	Total New Walkers	% New
Boston	196	15	8%
East Lindsey	186	40	22%
North Kesteven	79	13	16%
South Kesteven	143	14	10%
South Holland	159	31	19%
City of Lincoln	76	22	29%
West Lindsey	240	22	9%
Total	***1079***	***157***	***15%***

January-March 2011	Total Registered Walkers	Total New Walkers	% New
Boston	225	52	23%
East Lindsey	185	50	27%
North Kesteven	114	44	39%
South Kesteven	162	29	18%
South Holland	279	89	32%
City of Lincoln	114	63	55%
West Lindsey	305	55	18%
Total	***1384***	***382***	***28%***

Source: Natural England WfH Database

Overall the data demonstrates that Lincolnshire is attracting many new walkers into the schemes and the balance that is required in both recruiting and retaining walkers. The average number of attendances for regular walkers per quarter for 2010-2011 being an average of 6.4 attendances compared to 3.4 for new walkers, reinforcing how the scheme does foster for more established walkers a regular and routine form of exercise and activity.

2.5.4 Hard to Reach

Establishing and sustaining walking groups in more deprived urban areas (such as in Boston, Grantham and Lincoln) has equally proved difficult and required much partnership working and capacity building on behalf of the district co-ordinators. Trying, for example to establish walks in the Moorland and Birchwood area has met with limited response, despite extensive publicity, targeting of leaflets and flyers in the area and attending local events and groups to develop relationships and promote the walks by co-ordinators and walk leaders.

Using partnerships as effectively as possible was seen as one option to expand and diversify participation, for as the Countryside Agency state (2005) '*input from health professionals plays a key role in engaging with individuals who have the most to gain from health walks*.' In this respect in Grantham the walk co-ordinators has working closely with health trainers to develop new walks and help motivate people to take part in them. With intensive work and support, walks have been set in the more deprived areas of Grantham including the Earlsfield estate.

Equally in Gainsborough (which is an area of deprivation) using the funding a wide range of walks has been developed including summer lunchtime walks aimed at employees, toddler strolls and themed walks for children in partnership with Sure Start and a slow-paced walk from a GP surgery,

as well as providing walks as in Boston's case in which those with mental health problems can easily participate. What therefore has to be considered is the intensive use of resources particularly short term and support of partnerships to provide the basis for widening participation, with a judgment in determining where the balance should be between using resources to maximise engagement from an existing client base and seeking a wider participation profile. This should be the subject of discussion at future walks workshops between the LSP, Lincolnshire NHS and district co-ordinators.

It is not however just urban areas that have problems in developing walking groups, Lincolnshire's very rural character ironically brings its own particular difficulties for isolated communities. The reality, for example, is that not all hamlets in areas such as East Lindsey can or would expect to have their own walking group in their vicinity and transport is obviously an issue. Similarly in the south of the county there are large tracts of lands and fields, but it is difficult to find public footpaths for people to walk safely around. The difficulty of a rurally isolated county such as Lincolnshire is depicted in the mapping of present walks, which indicates that whilst many areas of the county are now represented in the walking programme, there are still large gaps in which to promote and build new walks. Research is therefore still required to understand where walks can still be expanded, but must take into account where capacity in the community exists to build up new walks and what form it should take to most benefit those who may participate for the most realistic mapping. This could be incorporated into the wider strategic remit of the Walks Forum which brings together all the main stakeholders within walking organisations in Lincolnshire.

2.5.5 Development of Programmes – Boston Case Study

Developing the activity of walking groups to include other physical activities in the programme has added a further dimension and additional value to the work of some districts and represents the direction in which programmes should develop. Boston, as an example, has piloted and developed valuable additions to its walking groups by providing facilities by which people could take part in a walk followed by New Age Kurling or Bowling. They now are contributing to Boston's Grow2Eat and Cook4Life project, whereby participants are taking part in community growing spaces and providing synergy between other initiatives, as illustrated in Appendix 1: Part 4. Using Boston's newly developed Central Park and outdoor gym equipment there is also an emphasis on increasing diverse ways of taking part in healthier lifestyles that are not just based upon walking, with members participating in table tennis, football and bowling. It is equally about making connections between active living and active recreation.

2.5.6 Promotion

One of the main issues for developing participation is how best to advertise and promote the walks to gain a wide range of population. Table 3 below is derived from data from the WfH website and it denotes how the walking group itself and word of mouth are the most important channels presently for participants learning about walking groups, which perhaps reinforces the profile of the group, if word of mouth through existing contacts is one of the main ways that it engages new participants. Poster and advertisements, together with the use of local newsletters and parish magazines are another important marketing route into walking schemes. Lincoln, in its advertising through the Lincolnshire Echo and Target, seeks to attract a wide audience and has also offered the opportunity of prizes for continued participation. Districts have supported the schemes through their own publications such as North Kesteven's 'News NK' and the Boston Bulletin as seen in Appendix 1: Part 3.

Table 3: Sources for Helping Access Walking Groups

How Did People Find Out About Walking Groups?	
Word of Mouth/Told about it by someone	510
Poster/advertisement	418
Walking group	336
GP/health professional referral	116
Library	62
Health trainer referral	35
Other	152

Source: Natural England database April 2010 – March 2011

The data also highlights that GPs and health professionals could be playing a more supportive role in directing their patients into walking schemes and be more active partners, although some are already pro-active in this respect, through (for example) Gainsborough's Walk Well scheme.

Given that the schemes are mainly delivered by those with a physical activity background, building in funding and time for support where required in developing marketing and promotion strategies would be beneficial, particularly at a time when in kind contribution from districts is being increasingly restricted as cuts are implemented. Branding is also an important issue, as 'health walks' may be perceived as a barrier to some people joining and most districts use a much more subtle invitation to take part.

2.5.7 Partnerships

As seen above increasing partnerships are one of the most important means of promoting and expanding the number and diversity of walkers. The role of health professionals in directing patients to walks as an alternative to medication and changing lifestyles being evidenced as a still under-used pathway. Groups such as the East Lindsey Heart Support Group have indicated that for certain health conditions it may be that particular groups and support is required, their success being that many of their participants move on to other groups and forms of exercise when they have built up confidence and sufficient levels of fitness. Equally partnerships with businesses and those connected to walking and outdoor pursuits (such as Millets) are areas that could be developed from present initiatives and part of the expansion of the Walks Forum's new strategic remit together with Lincolnshire NHS and the LSP in their co-ordination of the programme. The onus should not be just on the public sector to lead ventures. The provision of independent walking through such groups as the Ramblers and U3A and partnership with the walking schemes is equally central, given that there is interdependence between the two, with the provision of complementary ways of taking part in walking. Impact should not just be 'measured' by what can be accounted for within the walking schemes.

2.5.8 Funding

The continuation of funding of district co-ordinators was seen to be central to sustain and increase the level of Health Walks and participants presently achieved. For, as seen in existing examples within the county, whilst strong independent walking groups may continue to exist, the need to develop capacity for new groups and approaches depends on the provision of wider strategies, partnerships and co-ordination. Even with the maintaining of groups, the help and support that co-ordinators can provide in their varied remit regarding the organisation and provision of training for walk leaders and cascade training, the overseeing of data collection and entry and the wider

promotion of walks through leaflets, media and the Internet can be key. Without the coordinators the county would loose its strategic management of how walking can (and does) fit into more active lifestyles.

The role and participation of the highly motivated volunteer and the capacity of the individual community still nevertheless lies at the basis of the success and cost effectiveness of the walking schemes and their ability to be self sustaining with minimal support and help from paid organisers. Whilst many of the schemes may depend in their early and later stages on the 'torch bearer' of the keen walker who may largely represent an older retired profile, it is on them that the schemes can build capacity for more diverse and less active participants. What cannot be also underestimated (as national evaluations have found) is the effect that Health Walks have in maintaining and increasing levels of physical activity and contributing to alleviating short and long-term physical and mental health conditions. The walks effect on community capacity and the general well being of the individual through regular social contact is equally significant and important in an ageing population such as Lincolnshire's.

2.6. Summary and Recommendations

The walks programme provides a very cost effective and regular means of exercise, particularly for a proportion of the population who tend to be older. The activity is valued for its ability not only to facilitate a routine form of exercise, but for its social function and ability to improve both physical and mental well being. What however must be recognised is that a great deal of walking within Lincolnshire is not accounted for in the statistics of the walking schemes, but in the related independent walking in other groups and in participants' lives as part of active living and recreation, which in itself can be a by-product of the community walks. It is this developing of strategy and inter-relation between the two that will effect overall future walking patterns within Lincolnshire. Strategy for Lincolnshire must therefore consider how to both develop walks for people with particular needs and groups and how to encourage strategies for walking in everyday lives. To develop the programme further the following aspects are of particular importance:

- Ensure the provision of walks at different paces and lengths, different environments and times of day
- Develop bridging partnerships with other walking/environmental organisations such as the Ramblers/RSPB to determine a wider strategy for implementation
- Build partnerships with appropriate businesses to provide more knowledge and opportunities for group and independent walking
- Develop partnership with health professionals to share knowledge about the value of the programme and participation from service users
- Undertake regular reviews to understand and respond to the gaps in provision in terms of geography, age, and socio-economic background both geographically and socio-economically
- Co-ordinators should concentrate on the setting up of new walks and parallel activities for established walks to ensure continuing momentum, with the determining of a balance of resources between maximising participation and developing activity with under-represented target groups
- Develop marketing strategies and 'pulses of recruitment publicity' with suitable branding and ensure 'welcome policies' for new members (Natural England 2009)

West Lindsey Walking Group – Enjoying Environment – Source: West Lindsey Co-ordinator

East Lindsey Walking Group – Source East Lindsey Co-ordinator

3. EXERCISE REFERRAL

3.1 Overview

3.1.1 Context

Given that the first exercise referral scheme was set up in the early 1990s and that over the past two decades there has been a significant and sustained grown of schemes across the United Kingdom it represents an intervention which has already been subject to much policy review, national evaluation and research. Moreover, that as an intervention that relies on direct referral from health professionals, it is distinctive in placing an onus not just on the patient but the partnership with primary care and related health services to use the opportunity of consultations to identify where there is a need for exercise referral and behavioural change in lifestyles.

In 2001 concerns about the rapid expansion of the exercise referral scheme resulted in a National Quality Assurance Framework (NQAF) for exercise referral systems to provide unified guidelines and improve standards for existing and new schemes. Capacity and scarce resources were nevertheless seen to dictate how schemes were run, and the framework was criticised for its inability to achieve consistency and comparability of standards. Consequently in 2005, the Department of Health commissioned the National Institute for Health and Clinical Excellence (NICE) to undertake a further review, which determined that 'practitioners, policy makers and commissioners should only endorse exercise referral schemes to promote physical activity that are part of a properly designed and controlled research study to determine effectiveness.' They also concluded from controlled studies that exercise referral schemes can have short-term positive effects on physical activity levels, but that were ineffective in the long and very long term in increasing activity levels.

To help unpick this divergence between NICE's uncertainty about the effectiveness of the scheme, compared with the increasing popularity of the intervention to increase physical activity, a toolkit has been mapped, researched and designed by the BHF National Centre and Loughborough University (2010). It still however remains a resource, rather than a 'blueprint' to support and guide those involved in referring and delivering the programme. What emerges from the national research and guidance is that there is a gap in terms of research and practice of the precise nature and effect of exercise referral. That whilst practitioners and users value exercise referral, its means of delivery and impact particularly in long-term effects is equivocal, for as Dughill states the 'understanding of exercise referral as a real world intervention has been limited'. It is against this background that the exercise referral scheme in Lincolnshire's seven districts has been evaluated, recognising the complexity of the intervention and its outcomes and how it compares and differs from what has already been 'learned'.

3.1.2 Funding and Development of Projects

Lincolnshire's exercise referral schemes represent a programme of physical activity that is well established and which has been subject to considerable research and policy scrutiny at a national level. There still however remains, as discussed, uncertainty of process and effect and in Lincolnshire's case as nationally the individual districts represent different approaches to the scheme. In part this is the result of the varying ways that they have received funding in the past and the partners that helped in setting them up. In terms of development this ranges from Boston as the oldest scheme, whose support originally from the medical profession is reflected in their description still as 'exercise on prescription', to South Kesteven who only recently set up a scheme. Funding for the development and co-ordination of exercise programmes at district level being supplied both

through the Choosing Health programme, and a further non-recurrent £145,000 funding being awarded during 2009-11 by the Health and Wellbeing Fund to add to existing capacity and delivery.

The uplift from the Health and Wellbeing Fund in addition to the Choosing Health funds was considered to have had a notable effect in increasing capacity, extending the scheme in other areas and to improve the variety and level of service already provided. This is particularly important given the rural nature of the county and its difficulties in terms of transport and connections. As a programme this is reflected in monitoring data for 2009-11 within Appendix 2: Parts 5 and 6, where despite varying ranges of performance within districts discussed further in this section targets have been surpassed in reference to participants, throughput, referral sites and partners.

West Lindsey, South Kesteven and South Holland particularly reported that the funding had allowed them to expand to cover areas of the district that had not been part of the original programme. West Lindsey has expanded its remit beyond the Gainsborough region to the wider district through exercise referral now being set up at Market Rasen and Caistor. Similarly South Kesteven is able to accept referrals now at Bourne, Stamford and Deepings Leisure Centres as well as Grantham Meres. In terms of GP clusters this has allowed them to accept referrals from the Welland as well as Mid Kesteven cluster. South Holland has used the additional funding to use the Peele Leisure Centre at Long Sutton to widen district participation.

North Kesteven have used the funding to increase their capacity by over 50% by allowing them to get more level 3 fitness instructors qualified to deliver exercise referral sessions. They are now able to offer extra sessions over 7 days of the week, including sessions at the weekend, whereas exercise referral delivery was previously restricted to weekdays. Lincoln has equally used the additional uplift to increase staffing levels within the project, which has enabled them to provide more community based class options and have support in administration. East Lindsey mainly used the funding to ensure that the quality of the service remains ‘bespoke’, as well being able to provide a scheme at Horncastle.

Future funding, as in all projects, remains a central issue to maintain the momentum of the programmes, and exercise referral of all the projects cannot be delivered without specified funding for trained and professional exercise referral staff, co-ordination and administration and use of premises. At the time of writing Lincolnshire NHS will continue to commission the project and intends to pick up the Health and Wellbeing Fund top up, but these contracts are not yet in place. Permission from the Health and Wellbeing Fund Board has allowed underspend from North and South Kesteven to be shared among all the districts for 12 weeks from April to June 2011. Every district has therefore been allocated 75% of their usual funds to continue the work at current capacity, which with NHS funding included, allows the project to run at 92% capacity to June 30th 2011.

3.1.3 Countywide Approach?

Developing a countywide approach through funding and co-ordinating the exercise referral programme through the Lincolnshire Sports Partnership and NHS Lincolnshire and the district co-ordinators has meant that districts that developed different exercise referral schemes have been brought together to become part of a funded partnership project. It has (as seen) allowed districts to identify and develop capacity and schemes in areas where there were previously gaps in service. Workshops led by the Lincolnshire Sports Partnership and NHS Lincolnshire over 2010 and 2011 have provided a regular forum for discussion and sharing of good practice. The introduction and development of a generic way of auditing exercise referral (as will be discussed throughout this section) is a particularly important tool in assessing the effects and impact of the differing projects

from referral to follow up, providing a necessary form of standardisation and evaluation to diverse schemes.

In order to provide further impact and capacity the development of workshops with input from health professionals and stakeholders in the project, as representatives from referring GP consortiums, would have a more strategic remit, given that the remit and development of programmes depends on developing strategy with referral partnerships, as much as service providers.

3.2 Referral

Health Conditions

Whilst districts have differing inclusion criteria from scheme to scheme depending on their aims, the expertise of exercise referral staff and referring health professionals, most schemes nevertheless accept clients with a wide variety of medical conditions, as analysed from the clustering of referral conditions from the exercise referral audit, which are:

- CHD risk factors and cardiovascular disease i.e. hypertension and raised blood cholesterol
- Musculoskeletal disorders and conditions that affect mobility i.e. back pain
- Psychological problems i.e. anxiety, stress and depression
- Metabolic/endocrine problems i.e. diabetes
- Respiratory conditions i.e. asthma, COPD
- Neurological conditions, for example, epilepsy, Parkinson's disease
- Long term conditions i.e. chronic fatigue syndrome, multiple sclerosis
- Obesity

What has equally emerged from the audit data is how obesity continues to be the main factor for referral, with over half of referrals of 58% in the first audit July-October 2010 and 56% in the second audit of July 2010-January 2011 giving obesity as a reason, followed in both audits by hypertension as the second most recorded reason. This accords with research undertaken by Harrison and colleagues (2005) who also found that being overweight was the most popular reason for referral, followed by hypertension and mental ill-health in one scheme that he researched and James et al (2008) who equally determined that the most common reason for referral was being overweight or obese.

This predominance of obesity is analysed more fully in comparison to other conditions in Appendix 2: Part 1 as well as the variations according to districts. This highlights some of the differences that exist in districts based on the particular expertise that they have., In the first audit North Kesteven is the only district not to record obesity as the main reason for referral, but rather 'Chd/cvd' reflecting that that their original funding came from Active England and lottery funding for exercise referral for cardiac rehab patients and their co-ordinator is trained to Cardiac Rehab Phase IV, with the provision of a cardiac rehabilitation exercise programme from Carre's Grammar School Fitness Suite. Lincoln's data also reflects how it has developed particular expertise in back exercise classes for those with musculoskeletal back problems and COPD classes for those with lung diseases, who find it particularly difficult to find a gym environment that is suitable for them. East Lindsey has similarly been developing expertise in back pain, which is reflected in their figures for Mablethorpe. The resources and training of exercise referral staff is therefore an important factor in which conditions can be dealt with within the generic health problems that the exercise referral programme helps with. For example North Kesteven is the only district that can presently provide a service for

those with particular heart conditions or recovering from heart operations, with gaps of similar provision in other districts.

The exercise referral programme in Lincolnshire therefore provides a very broad intervention for a number of physical and mental conditions, but there is also a myriad of specific client group needs that are dependent upon the resources of the individual scheme in terms of personnel, training, and the built environment in which exercise referral takes place.

3.3 Characteristics of Schemes

Facilities and Support – What has been Learned?

Whilst Lincolnshire may have a countywide approach in terms of funding and co-ordination, at the delivery level there is much diversity, reflecting how partnerships and facilities have been incorporated into the scheme as they have developed from local initiatives and original funding sources. The wider range of settings utilised enabling schemes to expand activities offered, so that whilst gym based sessions remain the most common, there are also opportunities for swimming, walking, group classes such as yoga and Pilates, badminton and squash sessions. Moreover, whilst the schemes have largely developed using local authority leisure, other facilities used include community venues, private gyms and schools. At Mablethorpe the use of a dedicated 'gym' within the GP surgery at the Marisco centre has provided a popular venue and an enabler to engagement, with the partnership between the GPs and health professionals and exercise referral a visible entity, as well as proving clients with a setting with which they are familiar.

Increasing partnerships with other health and physical activity professionals, such as health visitors and instructors of tai chi has also meant that what constitutes exercise referral in terms of both environment and activity has expanded widely. Lincoln has, for example, used its partnership with health visitors to provide more exercise referral within a 'community' setting. East Lindsey is intending to provide five lots of activity including tai chi and the YMCA have incorporated zumba dancing as one of its classes.

Whilst exercise referral clients valued a wide range of activities to take part in, they equally reflected that the level of support received from exercise referral staff was most important together with finding an environment that best suited them, rather than necessarily the resources themselves. Some clients have, for example, found that a small exercise gym which is more 'private' and 'secure' for body conscious individuals, (as Carre's gym at North Kesteven), is an environment that they prefer, although it has less activities than a sports complex which can offer multiple ways of engaging in the programme such as swimming, gym, playing squash and badminton. Equally in larger gyms and leisure centres it was about recognising that they could 'fit in'.

As evidenced in the Toolkit (2010) by Riddoch et al (1998) and Biddle, Fox and Edmunds (1994), the 'qualities of the personnel in contact with patients' combined with close supervision and support was seen as central by providers and service users to promote adherence and motivation. This as Riddoch et al found is particularly important for those 'initially anxious about exercise', as well as proving added value both through the duration of the scheme and for long term change. For many getting through the first few weeks of the programme was described as particularly important to overcome the initial concerns that clients have, particularly as it may be a long time since they have participated in physical activity, or the first time that they have taken part in a gym environment, so 'getting them through the door' can present a barrier. In some cases this had literally meant enabling clients to get out of their car and into the gym: '*I had one client who did not have enough courage to come in the building they had real anxiety issues – I had to help them to physically come*

out of the car park – now they are a member and are still coming regularly. But I had to provide that extra time and support to get them out of the car park in the first place.'

It is this providing of a safe and secure environment and enabling the building up of a rapport with exercise referral staff that is seen as particularly pertinent when most clients have a health condition that makes them feel more vulnerable and uncertain about how to exercise.

'You can at first be intimidated by the machinery – how do you use the rowing machines? You feel silly but they really support you here. It has taught me also that I can do things that I thought I couldn't do with my back injury as using the rowing machine – I thought that with a back injury it would not be possible to use – but coming here has proved that I can use things like rowing machines.'

'*I have tried other gyms but it was all about loud music and TV screens everywhere and the person in the gym was working out himself rather than helping me. It was not what I wanted I need help to exercise and this is why I have come here. I had to ask other people at the gym how to use the equipment as nobody was there to help me to use it and that is no good at all – so this is exactly what I need.'*

'Exercise referral is definitely a benefit – it gets you through the door. I had been intending for a long time to get into a gym but had not got around to it and this provides you with the first step gives you that push'

'I found it really easy to come here as I did initially feel intimidated by coming to a gym – didn't want to go somewhere where it was all about 'stick insects'. I was relieved to find that it was what I wanted a friendly normal place.

'The fact that everything is monitored is very good, the targets lift and motivate you, gives you something to aim for and when you exceed your target you feel very good, its like getting the gold star at Junior School you feel very good about'

'I was referred because of my high blood pressure – so I want to know there is someone in charge who knows what they are doing – you want to know there is someone else in the room with you overseeing what you are doing. You don't want to be left as you are in other gyms – as your are not sure what happens if something goes wrong? It provides a nice feeling a 'comfort blanket' to know that … is there supervising. If you are the only one in with a medical condition what if something happens? You don't feel secure or safe'

Indeed that there is an on-going need for support for some clients as this participant reported about a particularly busy gym session:

'Sometimes I come here for evening sessions and it is very busy and you have to stand and wait to go on things and I have panicked and gone home, as I don't like it. So I like it now when it is really quiet and not a lot of people and that's what I really like.'

Hence all schemes incorporate varied forms of one to one support and develop and evaluate progress made, with exercise referral staff seeing clients usually on a regular weekly basis and reviewing programmes and 'objectives' at certain intervals as every 3 or 4 weeks. Often this may take the form of booked appointments after the first consultation with the client. Attendance itself might incorporate attending specific sessions managed by the ER instructor as at Carre's Fitness Suite, Boston or the Heelers at the Marisco Health Centre, whilst others attend non-specified

sessions as at Lincoln or Gainsborough Leisure Centre, but still get advice and support from the instructors present as required. Both models were seen to have varying advantages, for those who attend a dedicated exercise referral session there is the opportunity to build up a rapport with others whilst building on individual goals, as well as channelling ER resources of buildings and staff to specific times which is of particular importance in smaller locations where capacity is limited, whilst in other schemes there is more flexibility of when they can attend.

Some schemes have also added to their concept of support by providing a 'buddy scheme'. The YMCA's buddy scheme, for example, is made up of volunteers to help motivate those taking part in exercise referral. In North Kesteven health visitors have also supported and acted as buddies to clients attending Carres Grammar School Fitness Suite to review individual targets and progress and aid motivation.

Towards the end of the 12 week period exercise referral staff reported that although they continued to give support and advice they also encouraged their clients to be more independent in the activities that they set themselves, as they wanted them to be more self motivated when they finished the scheme and therefore more able to undertake physical activity routines on their own initiative.

Good practice identified from the research of Lincolnshire's diverse schemes and evidence collated by the Exercise Referral Toolkit (2010) would indicate that exercise referral should be based upon close and direct supervision and support. The experience of exercise referral and the rationale for its funding is that it should not be about just providing access to a free gym place or activity, but that it is managed and supervised by appropriately trained personnel at all times to encourage and support development, including aiding independent development and progress. Indeed, as Wormald and Inge (2004) have identified schemes should where possible:

- Ensure continuity of staff, a familiar face may improve patient's confidence to attend the programme.
- Offer a wide range of activities and accessible venues.
- Increase opportunities to socialise with other participants e.g. exercise sessions exclusive to referred patients, group induction, buddy systems

3.4 Costs and Sustainability

Lincolnshire is distinctive in that Lincoln and Boston are the only two schemes that charge for the period of exercise referral, with Lincoln charging the subsidised rate of £15 for 3 months and £1 for the classes that may be attended e.g. back pain. Those attending in Boston pay a subsidised £21.60 for 20 supervised sessions, but if they have difficulties paying this charge in advance they can pay £1 a session. This compares to the national mapping exercise undertaken by Loughborough University (2010) for the Toolkit in which 89% of schemes reported charging clients nominal amounts, with either a one off fee for the referral period, or a discounted rate per activity session. The one off charge ranging from £6.70 to £67.50, and the average charge per session being between £1.50 and £2. Almost a fifth of schemes (18%) also charged patients for the initial consultation or assessment, which ranged from £2.90 to £35.

Reasons given for charging by Lincolnshire schemes were mainly dependent on concerns that they wanted it to be a service that is 'valued', as it has a monetary input from the participants. Lincoln's decision was also based on the concept of the future financial viability of exercise for participants, that if they could not afford the initial costs then they were unlikely to be able to continue with subsidised gym membership at the end of the scheme. Clients referred are therefore offered

alternative supported exercise in the community, or the home, which they can do for free and can be continued long term. This was also seen to build up partnerships within the community, such as health visitors, who also support and monitor the clients development and health changes.

The non-charging schemes all reported that the funding meant that they could offer exercise referral free to ensure that there were no monetary barriers to joining the schemes, particularly as for many clients there was uncertainty about gym environments and hence a perceived reluctance to pay for a service that they were unsure about in the early stages of the referral. In areas of deprivation, such as Gainsborough, where the co-ordinator reported that clients often had to wait to start an exercise referral to save up enough money for gym shoes this was viewed as a particular barrier, as one client there stated; *As money is tight and I am a single mum it is important that it is free – otherwise I wouldn't be able to afford it'*

A 3 month survey undertaken by Lincoln in 2010, in consultation with the researcher, on the question of payment and whether the scheme was value for money reported a 100% agreement from clients that payment was fair and proportionate for the intervention. In discussions with the researcher participants also reported that paying nominal charges was extremely reasonable compared to the payments that they would have to make if they had to attend private professional consultations with, for example osteopaths, or join a commercial gym to achieve the same level of benefit that they had received from exercise referral. An evaluation of the National Exercise Referral Scheme in Wales (2010) which included asking participants a 'willingness to pay' question revealed that £2.27 a session was the mean price they were prepared to pay per session. This equates with community programme, such as Vitality and new Age Kurling and Bowling where participants are often paying around £2 a session to participate in activity.

Analysis of completion rates by districts using current audit data would not seem to indicate that there is a direct relationship between charges and completion, as Boston have relatively high completion rates in both audit analysis and Lincoln's is comparatively low. However, as will be discussed in the next session what is revealed when analysing the audit data in relation to qualitative findings, is that there is much complexity and interdependence of variables that effect completion.

The variable costings of district schemes (calculated by NHS Lincolnshire), which are detailed in Table 1:3 in Appendix 2: Part 1, range from £40 to £210 are particularly seen to reflect the differing costs between schemes provided by districts and mainly their leisure centres and schemes using more 'private' resources. Schemes such as West Lindsey have for example, negotiated extremely competitive rates from the Gainsborough leisure centre per exercise referral participant, with the incentive that the centre may get more business if they complete and join the gym afterwards.

In contrast North Kesteven has much higher costs per client, but as a smaller 'independent' scheme, as the YMCA, does not possess the same economies of scale and also offers the resource of cardiac rehabilitation, which increases the staffing cost. Costs determined through participants attending are moreover (as already seen) subject to variance dependent on demand, rather than what can be actually supplied. Given that the mean cost per participant in the evaluation of the Welsh exercise referral system was £385 per participant, with a range from £289 to £579 this still indicates that Lincolnshire's costs are comparatively low. Moreover, when comparing completion rates against average costs of districts, cost is not the only variable that should be taken into account. The YMCA, for example, in this particular sample has higher costs per client than East and West Lindsey, but in terms of throughput, completion and continuing participation is one of the best performing providers, so cost has to balance against other factors. A factor also reflected in the Deloitte Report (2009) 'the YMCA centre in Lincoln City is the best performing centre and has an 80% retention over the 12 week programme'.

3.5 Completion and Audit

Gidlow et al (2005/2007) have been particularly critical of exercise referral schemes and their lack of objectively and systematically monitoring the number of sessions attended by scheme participants and hence failing to analyse the nature of drop out and completion rates. Indeed the Toolkit (2010) considered that '*there has been inadequate participant profiling of those patients who attend and complete schemes*.' The introduction of the exercise referral audit tool in July 2010 has therefore provided an important tool by which the profile of those attending the schemes can be analysed; who is completing and dropping out can be compared more systematically both within districts and countywide. It can also highlight (as Gildow and colleagues have argued) where modifications of the scheme are necessary to reduce attrition. Appendix 2: Part 2 to 5, therefore contains detailed analysis undertaken by the researchers from the first audit from July to October 2010 and the second audit, which contains data from July 2010 to January 2011. Whilst reviewing the data it was apparent that there are inconsistencies in the recording of data, not least what constitutes a 'completion' and omissions in data from districts. Only some districts have, as in the case of West Lindsey, inputted all those referred in the data, including those who have dropped out before taking part, and districts such as Boston have not inputted exit strategies. Interesting patterns have nevertheless emerged and sufficient consistency between the differing data samples to determine the following findings in the following section and Appendix 2.

3.5.1 Completion Rates

National research undertaken and reported within the Toolkit indicates that attrition from schemes is high, with Gidlow's (2005) study finding the high percentage of 80% of clients dropping out before the end of the programme. The most systematic review by Williams, Hendry, France et al (2007) found that uptake rates were low with around a third of referral patients not participating in schemes. Adherence to schemes was also poor with between 12-42% completing a 10-12 week programme. The recent evaluation of the National Exercise Referral Scheme in Wales (2010) equally found that 44% completed the schemes varying from 11% to 62%.

Within the audit review of July – October 2010 completion rates are seen within Appendix 2: Part 1 to differ in range from 13% for East Lindsey's Horncastle scheme to the YMCA having a high retention rate of 83%, with an average retention rate of 52%. Analysis of completion rates in the second audit from July - January 2011 by Lincolnshire Sports Partnership have revealed similar patterns ranging from 15% for Lincoln to 78% for the YMCA and an average retention rate of 56% across the district, which is higher than that found in the literature.

When analysing participation patterns over the 12 week period in Appendix 2: Part 3, it is not unexpected that schemes with high completion rates, such as the YMCA and Mablethorpe, demonstrate very consistent attendance over the 12 weeks. This would seem to indicate that their method of operation in their close monitoring of participants and emphasis on continued one to one support does have an impact on adherence and motivation. Both schemes also report good relations and pathways with referring health professionals. Indeed the Mablethorpe system based as it is in a purpose built gym within the Marisco health centre represents a model of particular good practice having a partnership with health professionals that is built on working structures, not just networks. The setting of particular times to attend for exercise referral within the centre also seems to be a factor. The YMCA similarly have good working relationships with the GP practices that refer to them and this supports appropriate referrals and a scheme with which participants can identify given that they are 'just down the road' from the health practices. Analysis of completion rates has shown

distinct difference between districts and between the factors that seem to affect adherence, all of which are fully detailed in Appendix 2: Part 4 and summarised in 3.5.2.

3.5.2 Participant Characteristics – Completion Rates

Age

Like national studies as that of Gidlow (2007) the age profile of the scheme is prevalent in the 40-70 age category, with an average age of 49 for those in the audit sample looked at by the researchers. As found similarly in studies by Harrison et al (2005), Gidlow (2007) and James et al, (2008) completion of schemes in Lincolnshire does increase with age as represented in Appendix 2: Part 4 from 44% in under 35s to 56% completion in the 55-64 year old age group, with completers having an average age of 51, compared to 49 for non completers. Although given that this is not such a wide difference as found in other studies this would suggest that age may not be a main factor in completion rates.

Gender

More women than men are being consistently referred to the programme, however as found in the study of the audit in Appendix2: Part 4 and equally indicated in the literature, subsequent attendance and completion is better in men. Males were slightly more likely to complete the programme than females (56% compared to 48.1%) and also had an increased rate of attending over the whole 12-week programme.

Health Conditions

Analysis of completion by referred medical conditions in Appendix 2: Part 4 indicates that whether analysing completions by individual reasons for referral, or clustering them, that the highest proportions of completions are within the groups referred for Heart/CHD (56.6%), obesity (53%) and conditions related to mobility (53%), with the lowest proportions of completions to non-completions being found within those referred for reasons related to mental wellbeing (39.1% completion), as anxiety, depression and stress. This accords with other research discussed in the Toolkit (2010) which found markedly higher adherence rates in those patients who were referred for established heart disease (61% adherence) compared to those referred for mental health problems (33% adherence.) The national evaluation of Wales (2010) exercise referral scheme also found that 'those referred with mental health issues appear to face additional barriers and were more likely to drop put'. Although service providers did report, as seen in 3.3, how they supported those who were apprehensive about entering a sometimes busy gym environment, it may be that this demonstrates the extra support that clients with issues of anxiety and stress require particularly in the first stages of the programme. Indeed, one of the reasons given for a client not starting in the audit is the comment, '*didn't end up starting due to mental health issues*'.

In addition to studying the variables within the data a review of the reasons entered by service providers within the audit for participants dropping out before entering the scheme, or during the 12 weeks, have been analysed to understand further factors for non-completion. In for example, analysing West Lindsey's large proportion of clients who never attend, reasons that are given indicate a number of inappropriate referrals including people with too high BMIs and blood pressure and people who are too ill to take part. This is also found in the Skegness audit where a number of referral forms were been sent back to the GP as the client was not 'ready to start'. This indicates that within schemes a proportion of clients are not being correctly referred and that this represents lost resources and administration within Lincolnshire schemes.

The main reasons for drop out during the scheme include illness and injury, work and family commitments, a lack of motivation and participants finding that the activity and environment is not suitable or enjoyable for them. Seasonal factors also affect retention, such as holidays and this was compounded last year by the extreme weather conditions before Christmas, causing a number of participants to not attend or drop out. North Kesteven has also been affected by issues such as its recent refurbishment and as the only scheme providing support for complex conditions that deal with CHD, with high referrals from Grantham Hospital, a larger number appear to be not completing due to their unstable health conditions. All schemes do support clients to finish their programme where possible, but participants find it difficult to continue once they have missed one or more sessions.

Whilst Lincolnshire has a lower average attrition rate than that found in national research there are still considerable lost resources in terms of time, opportunity and management that results from a participant either not entering the programme or completing it. Cost saving measures must ensure relating funding to the actual use of resources and ensuring increased uptake and compliance within the programme.

3.6 Exit Strategy

All schemes emphasised that building up capacity in the individual to take part in more physical activity in their daily lives was the main aim of their schemes and recognised that for the majority the 12 weeks was just the beginning of their journey. Providing exit strategies from the exercise referral programme that sustain momentum and continued physical activity is therefore at the core of all schemes. The most popular exit strategy for districts as with national schemes being offering clients concessionary rates for either gym or leisure centre based activities for a specified period or waiving the joining fee. It is not surprising that those who have high rates of completion like the YMCA and Mablethorpe also have high levels of participants joining the gyms as an exit strategy. In the second audit sample 51 (67%) joined the YMCA and 34 (45%) the Heelers Scheme at Mablethorpe. South Holland and South Kesteven also record relatively high retention rates, with South Holland having 50% join, as well as others undertaking a variety of activities including badminton club, weekly classes and swimming and South Kesteven achieving 43%.

Exercise referral schemes however recognise that continuing with a gym or leisure environment is not a suitable exit strategy for all clients for reasons including cost, family and work commitments or that the gym environment was not ‘really for them’. Indeed, in West Lindsey’s audit 26 participants in Gainsborough stated that they could not afford to continue, showing how deprivation in this case is affecting ability to continue participation. Hence the provision of a wider range of settings and alternative activities for exercise referral, and the development of partnerships with other physical activity schemes and health partners such as health visitors, green gyms and health walks provide more opportunities for the completing client than just gym membership.

Indeed, it may be that exercise referral has enabled clients to return to more activity in their daily lives which was in itself their goal, so that continuing with the gym or even alternative structured activities is not considered necessary as one client explained; ‘*I need to ride 4 miles to work each day and I am 90% there to be back to cycling to work. I don’t think I will join up with the gym but my goal is to get back cycling and then I will continue to get the exercise I need.*’ Hence when reviewing Lincoln’s audit who have very low comparative participation rates and completion what is interesting to note is that some who are being supported in community and home forms of exercise are recording very high levels of participation of for example, 38 and 42 sessions over the 12 week period, which is building up a sustainable form of exercise in their everyday lives. There

are consequently many varied patterns of how and what clients do at the end of their exercise referral scheme and trying to capture and evaluate this is difficult, what however remains important is that patterns of exercise and participation are built upon at the end of the scheme.

3.6.1 Evaluation Processes and Feedback

In addition to the exercise referral audit all schemes, as equally found in the review of the Toolkit (2010), are collating data on a range of health and fitness indicators during the referral programme, including such factors as:

- Blood pressure
- BMI
- Body fat
- Waist and hip measurements
- Resting heart rates
- Sleep patterns
- Lifestyle factors such as diet and smoking
- Medication
- Fitness levels
- Confidence and self- esteem

The emphasis being on pre and post testing of the effect of the exercise referral scheme with data usually collected at the beginning, end and sometimes middle of the scheme to record any changes. Most schemes review targets that are individual to the client, given that setting just generic objectives may not be applicable in every case. Although, for example, obesity is a common reason (as seen) for referral, not all clients may need to lose weight, as those referred with conditions such as cancer where the client may need to put weight on. East Lindsey, for example, sets and reviews 4 individual targets with the client and evaluates on this. Using this initial data to demonstrate and feedback change and improvement to the client was seen as a tangible asset for motivation, as much as evidencing scheme effect.

In recognition of the need for more robust evaluation schemes Lincoln, for example, have set up and modified an evaluation scheme that questions and tracks the users views on the referral process, level of support and service received, the schemes ‘value for money’, together with health and physical activity outcomes.

3.7 Impact

In seeking to ‘measure’ the impact of exercise referral the complexity of outcomes cannot necessarily be captured by quantitative data alone, indeed Riddoch et al (1998) found that compared to empirical data from controlled research a review of case studies from exercise referral found that the ‘*the experimental data suggested small, positive effects and the case studies suggested wider-ranging and more significant effects*’. Hence in the evaluation a review of impact has included not only assessing quantitative data, but also gathering qualitative data evidence from participants on self-reported effects and reviewing case studies supplied by districts, which has demonstrated the inter-connected effect that the programme can have on physical health and fitness and improved mental well being. Interestingly what particularly emerged from discussions with clients was that the effects that they reported on were not necessarily in relation to what they had been originally referred for, as what emerged was a consideration of other factors that impinged on their health and lifestyles.

3.7.1 Physical Health

East Lindsey in a snapshot survey of 40 HEELERS clients found that they reported the following changes in health:

- 27.5% reported a reduction or change in prescribed medicine
- 27.5% reported a reduction in visits to a GP
- 82.5% reported an improvement in their physical mobility
- 57.5% reported an improvement in joint and muscular pain
- 77.5% reported a general feeling of improvement in their health
- 70% reported to have made improvements to their diet
- 80% reported changes in their self-esteem and confidence

Source: East Lindsey District Council

These improvements in physical mobility, fitness and flexibility with reductions in pain, improvement in self confidence and reduced levels of medication and visits to the GP are also related in the qualitative data and case studies, in a triangulation of data and evidence. Indeed participants reported a number of physical benefits from participation in the scheme, which also included weight loss, control of conditions such as diabetes and respiratory disease, increased stamina and improved balance. It also indicated how exercise referral is providing for present gaps in health care, where clients who have not sufficiently recovered from operations or have conditions that require support with exercise are being referred when they can no longer be offered such treatments as physiotherapy:

'I have had real trouble with my left hip from an old sports injury and had a broken leg that they did not really set well so had the situation where one leg appeared to be longer than the other so have had difficulty walking. So coming here has really built up my muscles and helped me a lot. I can't fault it at all the one to one support has been very good and the equipment. Being fit has made me much more positive and I can walk a lot more. The one to one support has been particularly good in keeping me motivated. I also don't eat so much junk food.'

'It is an excellent scheme. I can now walk so much better and cut down on the tablets I take. I am also losing weight and because of the exercise having a good diet. My wrists even are so much better, I can now open the garage doors easily, it is about improving lifestyles.'

'I am already feeling the benefits I feel so much better and have lost inches and my blood pressure is coming down. I still have to have the medication but it is at a much more normal level now with the exercise and the watching what I now do. The GP said would I consider going to the gym otherwise it was a case of more medication for the blood pressure and stress – so I took this opportunity.'

'I look forward to it, it has got the circulation back in my legs, when I first came I didn't think that I would get as far as I have done it is not what I expected, I haven't got bored at all. I am still enjoying doing it and have lost half a stone over the 3 months. My son has been nagging me for years to do something like this, it was a struggle at first, but you can do as much as you want to do.'

'I used to go to a gym but stopped but this had got me back. I need to lost weight and get more active and through my arthritis I need to be motivated to do more. On your own you think that you can't do things, when you are motivated to do it you know that it might hurt, but you have to get

through it. I thought I couldn't do the steps but I could – he (fitness instructor) said it will hurt – but it will get better and it did. I do find that the group helps as well.'

'I have found that coming here has gradually helped me to improve my fitness – I have problems as a diabetic and have to watch my heart rate – but this instructor is so experienced and knows what they are doing. I have been to previous gyms but they are not qualified to know what you really can and can't do and don't supervise like here this is so much better.'

'I am much fitter and I can breathe so much better. Overall it is about a changed lifestyle plan – I am eating a healthy diet keeping fit and slimming also with Slimming World.'

'I have started other exercise because of it now do a half hour brisk walk and exercise a lot more than I would have otherwise if I hadn't got to the gym. It provides balance'

'I am so much more flexible because of being here and that is by my 4th session – I couldn't bend down to unfasten myself on the rowing machine and now I can do that ….. had to help me out when I first came. I can also reach the handles on the machine so much easier this is a real achievement. I have also lost an inch off my hips so this is really important'

I didn't think that I would carry on as my breathing was so bad but I did. It is definitely helping my breathing and you also meet other people here and that really is a benefit'

'The benefits of being here are already starting to show by the 2nd week – my blood pressure is starting to drop every week and also it is good for my back problems and reducing the injections that I have to have in my back'

3.7.2 Psychosocial

As the exercise audit has indicated a small but significant amount of clients are being referred for issues surrounding anxiety, depression and stress. Given the increasing evidence base of the effect that exercise referral can have on improved mental well being as the Mental Health Foundation's 'Moving on Up' report its value as an 'effective treatment' for depression is increasingly recognised. It is moreover, that the effects on mental well being are not just for those referred specifically for psychosocial issues, but as Crone et al (2005) found that the psychological and social effects of exercise referral are equally important for other participants by making 'people feel good' and 'comfortable with who they are now'. Through the increased sense of well-being and purpose from the exercise, the motivation and support of the exercise instructor and social networks that exercise referral can provide, clients therefore reported beneficial impact on conditions of depression, stress and reduced feelings of isolation:

'I have depression so this has been really good to get me out of the house, now because of coming to the gym I have to get up and do something as well as helping me to be more fit. It does provide me with a challenge and makes me push myself. When I finish this I hope to get a job. I have just been so bored being a home and this has really helped me.'

'I had black depression and the exercise classes have made me feel wonderful again. They gradually build you up, you meet people and it gets you out of the house in a positive way. I am a diabetic and this has really helped me with my diet as well'

'The Dr said that I could be put on tranquilisers but I prefer to do something else to help the stress rather than medicine. Exercise is an alternative to medicine that I want to take'

'I had depression – so this is really good for me to get out and meet people in a friendly atmosphere. I would not have come to a gym otherwise as you need confidence to come to a gym'

3.7.3 Case Studies

These indicative case studies from West Lindsey and North Kesteven further demonstrate as in previous sections how exercise referral effects change and impact within the various schemes and how it feeds into daily living and continued exercise:

'I was referred to the Carre's Grammar School Fitness Suite by my doctor. Despite having some initial anxieties about starting a new exercise program, I found the gym staff to be very knowledgeable, friendly and supportive. By setting myself realistic goals with my exercise and monitoring my progress as I go, I've found that incorporating fitness into my weekly schedule can be very enjoyable and rewarding. I attend around twice a week for a couple of hours each session and, as a result, my blood pressure has lowered substantially and I've also lost over two stone in weight. The most encouraging aspect of the Fitness Suite is the welcoming atmosphere - you can just turn up and get on with things without feeling awkward or out of place. It really is a place for everyone. Without the initial referral, and the subsequent guidance from the gym staff, I don't think I would have achieved as much. Now that my referral period is over, and thanks to the School's very competitive fee, I've taken up full gym membership and plan to keep my exercise routine going.'

Source: *North Kesteven Referral Scheme*

A 66-year-old male was referred by John Coupland Hospital Physiotherapy department for problems with mobility and soft tissue pain. He began a programme in the gym to strengthen his upper body and legs and stated that the programme has been most beneficial for him. After suffering a stroke 4 years ago he thought his poor mobility was the best it was ever going to be. After 10 weeks on the programme he regained some feelings back in his left arm, an improvement, which he attributed to being on the exercise referral programme. After many years he is now able to tie his own shoelaces, which he considered was a major achievement in his life.

Source: *West Lindsey Referral Scheme*

3.8 Summary, Recommendations and Questions?

In reviewing Lincolnshire's exercise referral schemes what has emerged is that whilst it has developed into a very successful and popular intervention for both participants and the health professionals who refer into it, it remains a complex intervention to unravel given that there are so many variables that effect it both in relation to client profiles and the differing ways in which it is approached within the districts. What however would seem to emerge from the research is the following factors that have the most impact on the intervention:

- Offer a diverse range of activities and opportunities that appeal to a wide segment of the population, as found in national research exercise referral schemes seem to be much more appealing and effective with some segments of the population than others namely middle-aged patients (40-69 years). Schemes should where possible, as recommended in the BHFNC Exercise Referral Toolkit (2010) offer a range of non-facility based exercise options, such as home-based and community based activity options, which may promote long-term adherence. Where significant gender imbalance exists schemes should seek to

engage more men at risk into the scheme, whilst identifying factors to enable more women to complete the programme, as they are more at risk of not finishing the programme.

- The experience of exercise referral should depend on very close one to one supervision and monitoring and opportunities where possible for group support and interaction. Supportive and personalised service is a key factor in encouraging participants to continue particularly in the early stages of the scheme, when drop out is most likely. Clients referred with certain conditions, such as anxiety, may be at increased risk of dropping out and require additional support, or referred to more suitable programmes. This might, for example, include Health Walks where there is group support and green exercise that is increasingly evidenced as beneficial for mental health. There should be consideration of whether funding and costs paid to providers should be related directly to rates of completion and attendance, to concentrate resources to where they are most used and effective. Cost saving is also an issue where there is under-capacity in schemes.

- Partnerships with health professionals needs to be the subject of on-going dialogue to ensure capacity within schemes and that appropriate clients are referred both in terms of referral criteria and their readiness to change. There is still much loss in resources and time by inappropriate referrals, which needs to be addressed. Input and regular discussion at a strategic level from health partnerships is a requirement of continuing development. The onus for feedback on the long-term effects of the scheme should be part of the partnership with the health professional, who must determine as much as the schemes its impact and rationale for clients to participate. Gathering more outcomes data on the immediate and longer term effects will develop and strengthen the evidence base of the project.

- Evaluation of process and outcomes is an on-going need even for those schemes that are well established. The audit tool has begun to identify variables and issues and has provided much more meaningful analysis beyond numbers attending and throughput. It requires minor modification by some districts in its use to ensure that there is a systematic gathering of quality data across the district. Ongoing research on the audit data is required to understand the patterns that are underlying performance and completion. The evaluation of outcomes and gathering of data should be a tool to help change systems where required, but many of the effects of the scheme cannot be captured by data alone. As Dugdill et al (2005) comment 'there is a need to move away from the '*physiological measurement only' model, which predominates in most ERS research currently and look for broader, more meaningful measurement of quality experience and health outcome from all stakeholder perspectives, which incorporates both quantitative and qualitative indicators.*' Issues of quality and the experience of the participant being of utmost important in understanding what works in the sustainability and long term adherence of changed patterns towards physical activity.

- Harrison et al have highlighted that few patients (4%) are referred relative to the percentage of the sedentary population residing in exercise referral schemes, or as the Delolitte Report (2009) found in Lincolnshire that for those at risk of obesity problems only 4% could benefit. The question for future discussion being should exercise referral schemes be reserved for those patients with medical conditions which require a safe and strictly supervised exercise environment, rather than a more general programme largely for participants with health issues related to obesity?

4. FIT KIDS

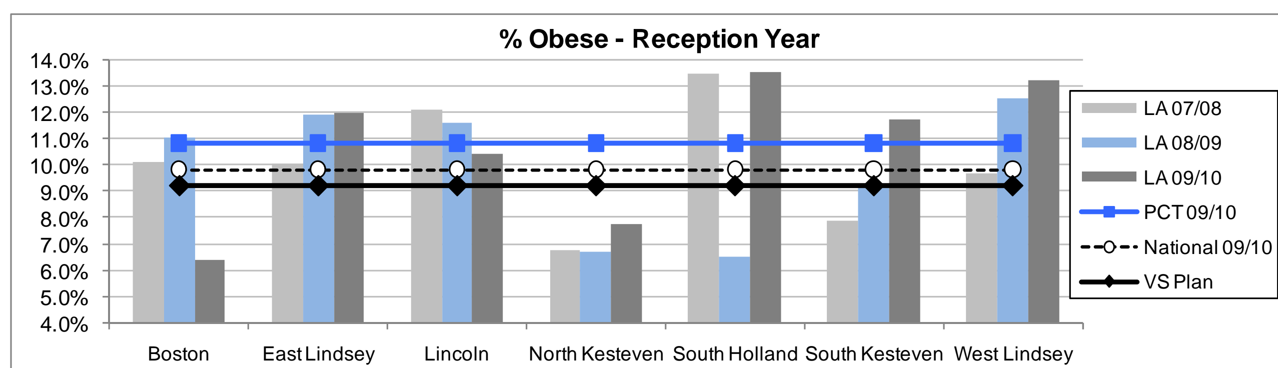
4.1 Overview

4.1.1 Context

In 2004 the government identified obesity as a policy priority and set Public Service Agreement (PSA) targets to halt the annual rise in childhood obesity among under-11s by 2010. This has been reinforced by the national child obesity strategy (2008) of 'Healthy Weights, Healthy Lives' that concentrates on the 5-11 age group and seeks by 2020 that the proportion of overweight and obese children should be reduced to that of 2000 levels. As the Tackling Obesity Together (2009) resource by the Youth Sports Trust has indicated the concern for rising child obesity levels is the increased health risk of respiratory disorder as asthma, endocrine functioning as diabetes, orthopaedic problems as joints and cardiovascular disorder. In terms of psychological risk the possible effects in terms of self image and social action are stigmatisation, appearance related bullying, poor self esteem and social functioning, depression and social exclusion.

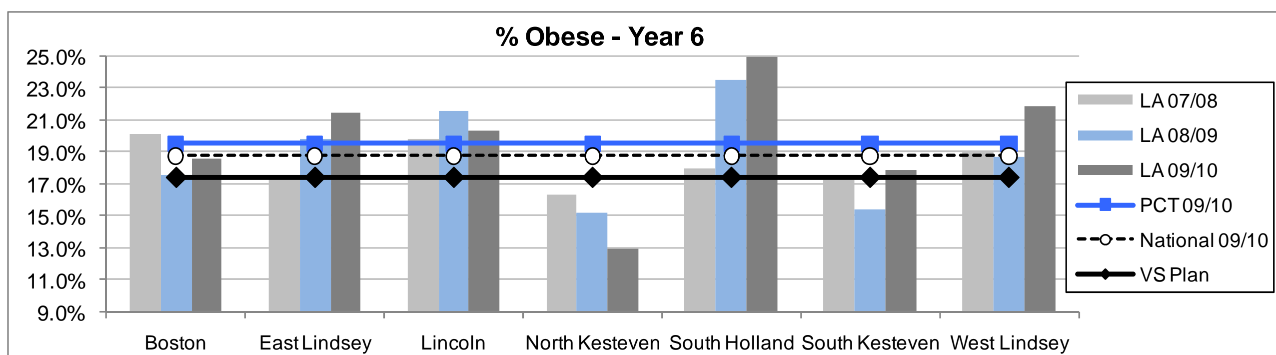
Lincolnshire targets to reduce obesity amongst children entering school (N1 055) and at Year 6 (NI 056) are therefore at the centre of public health policy. Indeed, the prevalence of child obesity in Lincolnshire's as measured by the National Childhood Measurement Programme (NCM) assessment at reception and Year 6 has continued to rise with obesity levels increasing by 1% for both cohorts 2009-10, being 1.6% over plan for reception year of 10.8% (compared to 9.2% Vital Signs target) and 2.1% over plan for Year 6 at 19.5% (compared to 17.4% Vital Signs target). The prevalence of obesity rising with age is also matched with a larger percentage of children in Year 6 being very obese and at the 98% percentile. As seen in the following graphs there are also significant differences between the districts, with ranges of 6.4% obesity in Boston to 13.5% for South Holland amongst reception children and from 13% obesity for North Kesteven to 24.9% for South Holland in Year 6 children. Whilst South Holland has the most prevalence in both cohorts, North Kesteven has remained well below target concerns. Within the districts as seen in Figure 4.1 and Figure 4.2 there are contrasting patterns with both upward and downward trends.

Figure 4.1: Reception Children



Source: NHS Lincolnshire: The Health and Social Care Information Centre

Figure 4.2: Year 6 Children



Source: NHS Lincolnshire: The Health and Social Care Information Centre

Strategies to tackle the problem of obesity in children have included increasing physical activity with the Chief Medical Officers' Report (2004) recommending that children undertake at least one hour of moderate intensity physical activity a day and for those with weight problems even more. Physical activity in childhood was evidenced by the CMO to have a 'range of benefits' 'which in themselves justify its promotion' these include healthy growth and development, maintenance of energy balance to control a healthy weight, avoidance of risk factors such as high cholesterol, positive impact on psychological well being, cognitive functioning and social interaction.

The further publication of the Healthy Weight; Healthy Lives' strategy (2008) by the Cross Government Obesity Team, the launch of Be Healthy, Be Active (2009) and Change4Life in 2009 with its emphasis on families has brought strategies together to build up more physical activity and healthier eating into the every day life of children, combined with reducing obesity rates. The 'Healthy Weight; Healthy Lives' and Change4life initiatives have brought together key health messages for families of eating '5 a day', reducing the fat and sugar content of diets and motivating children to participate in 60 minutes of moderate activity every day. A chief concern from the research undertaken for Healthy Weight and Healthy Lives was that parents consistently underestimated the amount that their children ate and over estimated the amount of activity the family did. It is against this background that the 'Fit Kids' programme seeks to contribute to Vital Signs target VSB09 and National Indicator 56 to reduce and halt rising levels of obesity in children, as measured in Year 6. As an innovative and developing programme it is equally about learning the processes and pathways that aid behavioural change for children and their families by encouraging and altering participation in physical activity and patterns of family life.

4.1.2 Development of Fit Kids Programme

Whilst no 'pathway' currently exists locally for overweight or obese children the Lincolnshire Sports Partnership and NHS Lincolnshire in partnership with the local districts have developed a 'Fit Kids' programme, which has been in operation in Boston since 2004, but largely instigated in the other districts from 2009 with £140,000 non-recurrent funding for 2009-11 from the Health and Well Being Fund. With an under-spend of £20.225, given that North Kesteven is not undertaking the project and South Kesteven has been late in setting up, this has allowed funding for the first quarter of 2011-12.

In setting up a new programme the option taken was to build on capacity and partnerships already existing in districts, mainly within the exercise referral project. Buying in more commercially available programmes such as MEND and Carnegie Clubs being considered a much more costly

alternative and less likely to lead to local sustainability. The co-ordinators, instructors, local resources and knowledge of exercise referral were therefore largely the basis on which the Fit Kids programme and its development was foundered. As a pilot project it has not unexpectedly faced complexity in building up its operation, not least the sensitivity of the project and how to engage the target group. In so doing it has changed its focus and operation over the 2-year period, what has been learned being as instructive for programmes of this type, as the outcomes themselves. It is this, which will be explored in the following sections, with Appendix 3 detailing the monitoring data referred to.

4.2 What has been learned?

4.2.1 Direction and Focus of the Project – County Wide Approach

The interim report (Jackson 2010) reflected on how as a pilot programme the emerging main concern from Fit Kids was that the project in its inception lacked definitive central direction, objectives and remit. As the projects developed individually at a district level as ‘pilots’ what consequently resulted was schemes had a diverse range of ages attending from 5 to 16 year olds. Boston Fit Kids, for example, as an originally teenager based exercise scheme continued to have wide criteria of 8-15 year olds, as with West Lindsey’s Active Academy designed also for 8-16 year olds. Reasons for referral similarly differed; for although the principal criterion was one of weight issues combined with low activity, other criteria included young people with emotional and behavioural problems, difficulties with co-ordination and balance and risk of exclusion. Schemes similarly had different activities and inclusion of such factors as diet.

As a pilot, the experience of Fit Kids in its first year was therefore about determining how it developed into a more robust programme and, if it was to be a central part of physical activity and childhood obesity strategies, then what criteria would it require. Following the pro-active stance of the Physical Activity Manager of LSP in determining a Toolkit the project is now based upon a consistent plan which can be followed literally week by week by the districts. They use it to form the basis of their activities whilst allowing for individual approaches to how the central objectives are achieved. The Toolkit was based on evidence and approaches from various initiatives, such as Change4life, and now provides a unifying 12 week programme based on behavioural change and ‘education’ in relation to physical activity and healthy eating. Indeed, Aicken et al (2008) recommend in their review of schemes to promote healthy weight amongst obese and overweight children in England that toolkits are implemented where smaller schemes are in operation, so that as in the case of national schemes such as MEND and Carnegie Weight Management, there is a unity to operation and scheme evaluation.

The requirement for family involvement and attendance at sessions has significantly changed the emphasis, so that the project is aimed not just at the level of the individual child, but the family. Involving families according to the evidence base of NICHE and Healthy Weights Healthy Lives (2008) as assessed in projects such as MEND is essential if long-term change is to be effected (Sacher et al 2009) and recognises that influencing the child is not enough, when so many decisions regarding activity and nutrition are taken by the parent, not the child. Moreover, that multi-modal structures and models of support are required to effect change. The concentration on those children who have a 95 percentile means that the project is now targeted at those for whom there is a specific need, which has had implications for process and strategy. Targeting those in the 8-11 age group compared to the wider age ranges of the first year has equally been a conscious decision to contribute to the objective of reducing obesity at Year 6 as measured by the NCMP local programme.

Project co-ordinators and deliverers generally expressed the view that a countywide approach aided delivery and the decisions that they needed to take to implement it. In particular, that the quarterly Fit Kids workshops arranged by LSP and NHS Lincolnshire allowed a forum in which they can 'bounce ideas' and determine good practice on, for example, how to advertise the project, whilst recognising local demographics and constraints. The toolkit enables the standardisation of monitoring and evaluation, as much as operation, with the same measurement of weight and height, bleep tests and parent and child questionnaires at Week 1 and Week 12. Judgements not only about how funding was directed but how it could be assessed in its impact could therefore be more accurately 'measured' against set criteria and a shared evidence base across the county.

4.2.2 Partnerships and Social Marketing

The most difficult and continuing barrier for engagement within the Fit Kids project has been gaining the referral of either the family or professional partner. Obesity being an extremely sensitive issue; with the parent or professional often not wanting to confront the issue and seen to label a child by referring them to the project. Schools, for example, although one of the natural partners for the schemes were found to often be unwilling to refer children as they did not want to be seen to be 'labelling' children, particularly as school teachers wanted to continue to foster good relationships with parents. GPs (except in the case of Boston where they had helped instigate the project) were found to have mixed patterns of support, some being (as in Lincoln's case) initially reluctant to refer, as it was a 'new' project. The consideration that children go less often to see their GP except for routine illness combined with limited opportunity to discuss the sensitive issue of obesity in a short consultation time were additional factors that contributed to low referral by GPs. The 'Healthy Weight; Healthy Lives' research found that families can fail to acknowledge problems of obesity and limited activity and often believe that their children are sufficiently active at school through timetabled sport and PE, which contributes to the problem of parental referrals.

Most programmes have therefore had to discover the most effective partnership in their particular area and the appropriate channel for marketing and advertising to gain the 'right' referrals through tactical wording. What has been particularly learned is that it is not enough to send out flyers and leaflets and expect suitable referrals, but that there needs to be a constant promotion to engage the target group. Lincoln City (in summer 2009), sent out 1,000 flyers for their targeted areas in years 4, 5 and 6 and went to staff meetings in schools, which resulted in just 2 referrals. South Holland (in 2010) similarly sent out 1400 flyers to 4 primary schools, as well as GPs and nurses, had an advert in the local paper and summer events brochure which resulted in getting just 7 children that met the criteria.

Districts had consequently developed various levers and partnerships to determine referral pathways into the project, with most having a mixture of referral routes. Boston, as the most established project (which had been originally set up by a local consultant and had 'buy in' from health partners from its start) has recently struggled with referrals from GPs and the Pilgrim Hospital. It has therefore worked increasingly with the Schools Sports Partnership and to get associated referrals from its peripatetic and outreach work with primary schools. For West Lindsey and East Lindsey the support of the school nurses in identifying suitable participants and gaining partnerships has equally been of importance. In West Lindsey, for example, the school nurse aided the setting up of the existing and pro-active partnership with two schools. In one school the head has in addition to the distributed flyer talked about the project in assembly and promoted it as a special 'fantastic after school club', as well as talking to specific parents about it to help further involvement. Similarly, a scheme set up the Trent Valley Academy was very successful with the PE teacher identifying pupils and their families that could most benefit from the project. Whilst school nurses would in many ways appear to be the most effective and suitable way of determining referrals (given their

professional health role) other districts considered that this would not be suitable in their case. Boston, for example, reported that there are insufficient schools nurses in their area to generate the number of referrals required and in Lincoln the school nurses are only in schools once a term, so they are not able to refer within the timing of the programmes.

In addition to medical and school pathways to referrals and persistent advertising through media use, as Lincoln's advertising in the Lincolnshire Echo, the most effective route was often considered to be word of mouth and personal contact. Family participants at Lincoln reported that being told by someone about the project had encouraged them to take part, as much as seeing flyers, posters and adverts. South Kesteven has also found that participation in other activities such as Zumba dancing by the instructor has enabled gaining the involvement of a number of participants in the Fit Kids programme as families become aware of the project and its value.

4.2.3 Parental engagement/hard to reach? – Under-capacity?

The success of recruiting participants to Fit Kids has generally been one of mixed responses and a continuingly learning process, particularly in more deprived areas, with the consequent effect ranging from under-capacity in schemes, to the case of North Kesteven having to withdraw from the programme at the time of writing. What has emerged from the two years is that delivering Fit Kids is not the main issue affecting the intervention, but getting parents (and hence their children) engaged in the project in the first instance and maintaining their involvement. Most schemes having capacity to deliver to more children than currently taking part as detailed in Table 4.1. This being very different even from exercise referral, where there are parallels, and more medical models of interventions, where services respond to continuing and existing demand from self and GP referral.

North Kesteven, for example, which formerly had an Active Lifestyles scheme within local schools found it very difficult to get any response to Fit Kids. They put flyers in all primary schools, GP surgeries and youth services, as well as adverts in local papers (that they had researched with partner agencies for its suitability and appropriateness) but only 2 families responded, who were then referred on to exercise referral and gym based activity. The main difference between the engagement with the two activities was seen to principally be dependent on the targeting on obesity within Fit Kids and the discussed general reluctance for schools to identify students in what is a sensitive issue. In this respect, South Kesteven equally considered that partners such as the Schools Sports Partnership who had worked together on projects such as the Nintendo Wii Fit scheme which had encompassed some physical activity and nutritional advice did not want to work with a narrow target group, but a wider concern to involve those who are physically inactive as well as just obese.

Parental involvement was considered to be about practical issues as much as issues of image and acceptance. South Holland, for example, found that it was difficult for many parents involved in factory and shift work in the area to attend sessions that often took place after school. Families with smaller children also felt that it was sometimes difficult to take part with them. Alternatively parents welcomed the ability of schemes to allow (where applicable) siblings to attend, as part of the 80:20 obesity criteria for scheme attendance. This helped solve potential problems of stigma when one child has weight problems and the other does not, as one mother commented she did not want to 'single one daughter out', as well as fostering the sense that the family as a unit is involved.

Locations and venues were also found to be a factor and determining what would be the most popular was not always those that were the most convenient located in neighbourhoods or at schools. Indeed, service providers and discussions with families have indicated that particularly in more deprived areas there is an increasing challenge to involvement. Lincoln, for instance, struggled to attract attendance for Fit Kids in schools in the Moorland area and in the Moorland

Community Centre, compared with locating the activity in Yarborough Leisure Centre, which was seen as a much more attractive alternative by families.

East Lindsey, in concentrating on more deprived areas, have found recruiting in Mablethorpe to be particularly challenging, with only 1 child participating in the last programme compared to 13 in Skegness. In order to engage harder to reach groups they have taken a different approach to other districts by focusing more on exercise as the initial 'hook' to engage parents and children and no onus on parents to attend as directed in the Toolkit. They have then incorporated issues such as reducing junk food into the exercise, not as a separate part of the session and sought to bring in parents more as the schemes have progressed, rather than setting up barriers and reasons for not being involved in the first instance. Parents in deprived neighbourhoods particularly commented in group discussions on the continuing difficulty of engaging some parents *'there is a lot who should be at the programme but are not, as their parents don't want to commit – there is probably another 90% who should be involved'*

Overall the changes that the Toolkit had engendered and particularly the active role of parents in the project was considered to be that the '*more involved they are, the more successful the programme'*. Where parents attended nutrition sessions, for example, there was seen to be more positive effect on diet than those whose parents missed the sessions, *'you can really see from the food diaries whose parents are on board.'* As a service provider considered; '*We got 17 last time and they were half keen, half were here as their parents wanted them to have somewhere to go. Now we notice that in involving the parents it has become more important and the children are consequently more motivated and so are the parents. It may be harder to deliver but we are getting better results, but less children, so it is more expensive.'*

4.2.4 Costings

Table 4.1: Supply and Capacity of Schemes

Area	Numbers In Scheme 2010-2011	Present Client Unit cost (£) (per participant)
Boston	82 (164 Outreach)	£153
East Lindsey	47	£383
Lincoln	69	£234
South Holland	59	£183
South Kesteven	41	£263
West Lindsey	131	£95

Source: NHS Lincolnshire

This balance between 'quality' and 'quantity' and the difficulty of promotion and engagement within the project has resulted in differences between what districts have the capacity to deliver within present schemes and the numbers that they are currently delivering, and consequently the costs per individual participant, as depicted in Table 4.1. However, as explored, getting participants into the intervention is complex and subject to inter-related variables and factors, all of which require different resources before the programme begins. It is not the same as comparing the delivery of medical services, such as a hip replacement, where there is already a known waiting list

and patients already committed to the intervention. It is in this respect that (following the last Fit Kids workshop) East Lindsey are currently seeking a cost analysis of their programme including promotion. What remains unequivocal at the present time is that there is scope for expansion in most schemes, beyond present targets, but that the difficulty of recruiting participants has to be factored in. Attrition from structured programmes such as Fit Kids is equally still likely to be a problem, given that once a child has begun the scheme it is not feasible for others to join it mid-way, particularly given that it has become a much more rigid 12 week programme.

4.3 What works?

4.3.1 Instructors

The motivation and professionalism of the instructor was (as expected) seen as one of the main factors of the success of schemes and children and families' continued engagement with the project. Continuity of instructor was therefore important and families recorded that they were central to building up confidence and supporting change. The whole emphasis of the sessions being on 'fun' and children enjoying themselves were seen by parents as a particular benefit, so that they 'learned' and modified their behaviour without being conscious of it. Families, including grandparents, could also use the rapport built up with instructors to open up and continue conversations about fitness; as one grandmother related *'I can now talk about things with them a lot better, enabled me to carry on talking about fitness …. We can say you know what the fitness instructor said'*.

Group dynamics are an important part of the programme, and service providers considered that having 10-12 in a session is probably an ideal number, given that there is then a critical mass to interact in the activity, without the possible distraction of a larger group. Instructors reported that during the process there were significant changes; the group would come in at the beginning nervous and 'withdrawn' and reluctant to doing anything at the start of the session, *'but by the end they are running around, joining in, interacting with each other'*.

Whilst parents considered that some 'messages' included in the sessions such as '5 a day' were aspects that they were familiar with and this felt sometimes 'condescending', others (particularly in relation to the contents of processed food and drinks) had been interesting and informative. Parents and children had, for example, been unaware of the sugar content in drinks such as coke, or the level of sugar, fat or salt in food that they had previously considered to be a healthy snack or meal. Parents equally reflected that completing the Fit Kids Journals each week had reinforced for the family the activities that they had done in the sessions and provided in particular an opportunity to analyse and change patterns of family eating and activity.

4.3.2 Venue and Follow-up

Having an exit strategy is central to ensure that continual participation in physical activity is an outcome of the programme. Individual schemes have therefore developed various pathways to ensure that the effect that they have had is not lost in the long term, based in part on what resources they use during the project and the partnerships that they have established. Two main types of venue have emerged, with the use of either local authority leisure centres and/or private gyms, or the use of schools in local communities, with changes as noted in several districts as they have developed programmes and understanding of where they can best engage students and their families. East Lindsey and West Lindsey have mainly used schools over the past 2 years, whilst South Holland and South Kesteven have placed their programme in public leisure centres and private gyms and Lincoln and Boston have used a mixture of venues.

Given the many factors involved in the delivery of the project and the differing contexts and resources of the districts no particular model has emerged stressing the value of one type of venue over another. Rather that it is about working out what is best for a particular district and its client group at a local level. Using schools, for example, was seen to provide children with a familiar environment in which they felt comfortable and was convenient, in not having any extra transport issues for parents. At the end of the sessions children could then perhaps more easily move on to other school sports activities such as football or cricket clubs, or other activities within the school as their exit strategy. Some venues and resources can limit what could be undertaken and there have been conflicting demands for the school hall or space that Fit Kids has been using. However, facilities offered by schools such as the Gainsborough Trent Valley Academy and its state of the art gym demonstrate how valuable such schools can be in widening access and participation within the community.

The use of local authority leisure facilities and gyms has undoubtedly provided a wide range of activities that the children could engage in and a different environment to that of schools. Parents on one of the West Lindsey schemes which used both the school and the leisure centre reflected that they and the children preferred the session at the leisure centre as it was something 'different' from being in school, although they would have preferred more access to the facilities in the centre. Being separate from school leisure centres and gyms also provide anonymity from any potential labelling at school, although attending such venues does rely more on parental involvement for transport, if the centre is away from where the child lives. Moreover, with settings such as Yarbrough Leisure Centre the intention is that they can be more encouraged to take part in the many activities at the centre once the programme finishes. Regardless of venue programmes the intention was to signpost participants into continuing activity at the end of the project, East Lindsey, for example, seek to 'feed' their students into the Fitness Academy at Skegness and were looking to have 1 hour classes after sessions for those who have left together with a summer session on the beach to find out what progress they have made since leaving the project. West Lindsey similarly provide vouchers for the leisure centre and signpost to other classes and activities, regarding the scheme as being as much about facilitating children's confidence to change, and take part in activities at the end of the project, regardless of where they are based, as it is to fostering a continuing change.

4.4 Impact

4.4.1 Data

Data collected in district monitoring (detailed in Appendix 3) reflects the difficulties evidenced in 4.2.2 and 4.2.3 that districts have had in meeting targets in terms of participants and throughput and given the late starting of some projects (as in the case of South Kesteven). However, districts such as West Lindsey and Lincoln have had notable success in terms of numbers and throughput and most districts have still performed only slightly under target. Moreover, as the toolkit has evidenced (in terms of completion, increased physical activity and fitness, reduction in BMI, improvements in percentile curves and changes in health behaviour and confidence from the attitudinal surveys undertaken by parents and children) there have been significant positive outcomes from the project.

When reviewing data for the October to December 2010 cohort, there is a high rate of completion compared with schemes (such as Exercise Referral) with an average 90% completion rate, ranging from 58% for East Lindsey to 100% for South Holland and one of West Lindsey's schemes as seen in Table 4.2 overleaf.

Table 4.2 Completions by District, October – December 2010 (*Source LSP/Toolkit*)

District	Total Referrals	Total Throughput	Completers	% completers	Average visits
BO	6	60	5	83%	10
EL	12	131	7	58%	11
SK	8	143	8	100%	17.9
SH	7	156	7	100%	22.3
WL	9	192	9	100%	21.3
WL 2	26	274	24	92%	10.5
COFL	20	457	19	95%	22.9
Total	**88**	**1413**	**79**	**90%**	**16.1**

Figure 4.3 shows the referral and throughput figures graphically for this period and demonstrates particularly the comparatively high volume of throughput from schemes in the City of Lincoln and West Lindsey.

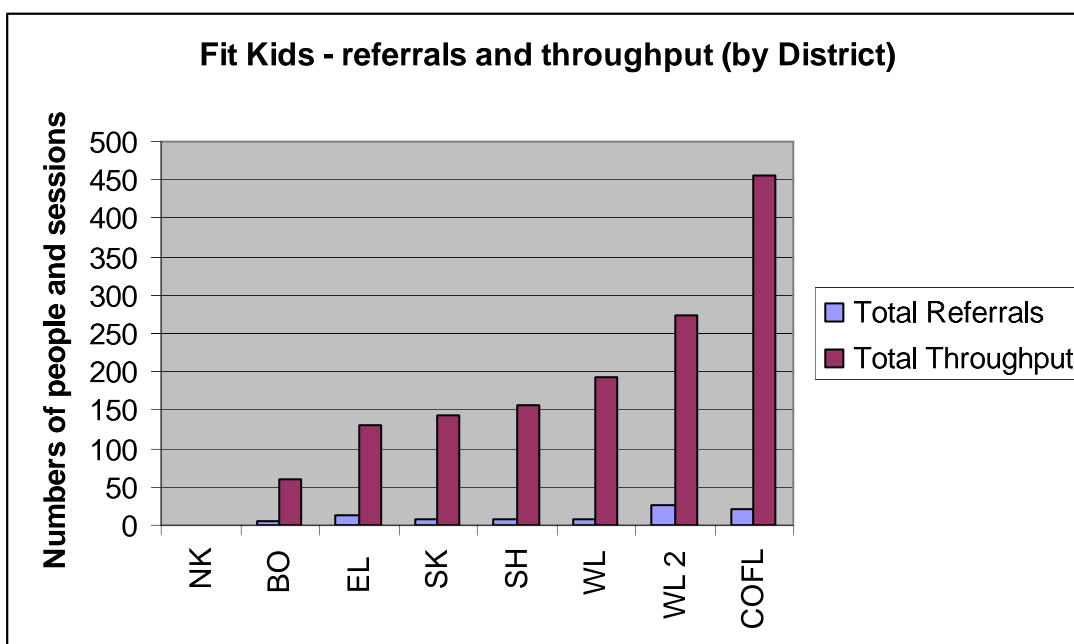


Figure 4.3: Fit Kids referrals and throughput, by District Oct – Dec 2010
(Source LSP/Toolkit)

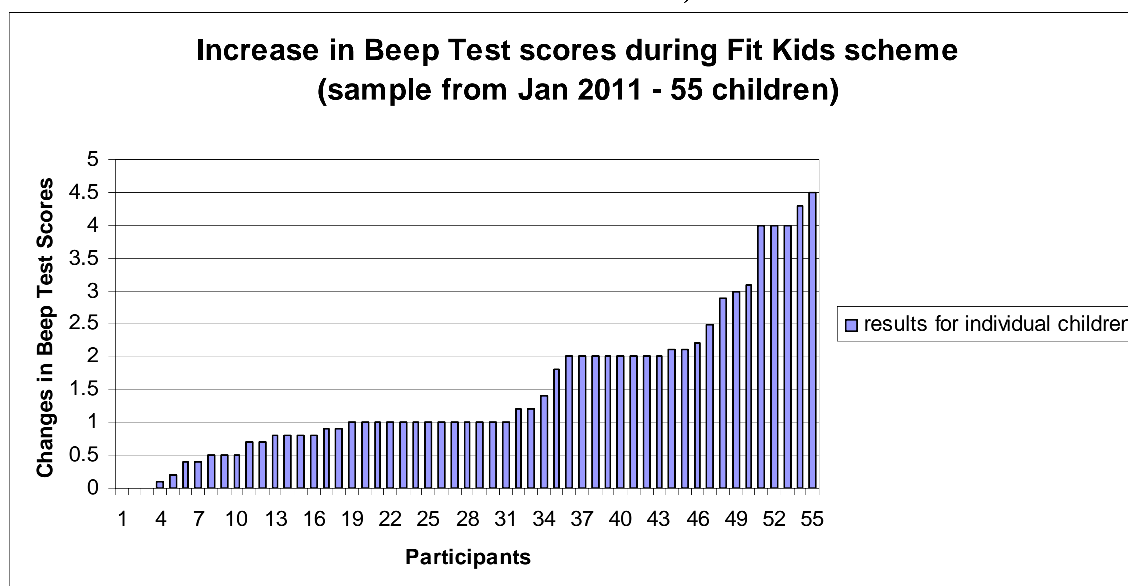
Although there are differences in districts the overall impact of the project (as detailed in Table 4.3) indicates the successful nature of the project in terms of reduced BMI, percentile curve and changes in positive attitudes and behaviour as recorded by the parental and child surveys.

District	Total Referrals	Total Throughput	Completers	% completers	Average visits	Males	Females	Average Age	Average BMI pre	Average BMI post	Change	Average Percentile pre	Average Percentile post	Change	Child change in positive behaviour	Parents change in positive behaviour
EL	12	131	7	58	11	8	4	9.5	26.4	25.8	-0.6	94	94.1	0.1	113	124
COFL	20	457	19	95	22.9	5	15	9.15	24.2	23.7	-0.5	95.7	94.6	-1.1	44	57
WL	9	192	0	100	21.3	2	7	10.1	25.6	24.4	-1.2	96.3	95.1	-0.4	67	51
WL 2	26	274	24	92	10.5	15	9	9.5	19.4	19.1	-0.3	68.9	66.4	-2.5	54	-
SH	7	156	7	100	22.3	3	5	9.29	23.6	22.8	-0.8	93.4	92.1	-1.3	90	131
BO	6	60	5	80	10	3	3	9	24.5	24	-0.5	97.8	97.2	-0.6	79	78
SK	8	143	8	100	17.9	3	5	9.5	21.5	21	-0.5	90.9	88.9	-2.0	65	48
Total	**88**	**1413**	**79**	**90**	**16.1**	**39**	**48**	**9.44**	**22.6**	**22.0**	**-0.6**	**96.7**	**96.1**	**-0.6**	**73.1**	**81.5**

Table 4.3: Fit Kids Performance Data Oct – Dec 2010 ***(source: LSP/Toolkit)***

Data for the January to March cohort equally indicated an average reduction in BMI of 0.6 and a percentile curve improvement of 0.9. Although the bleep test was not undertaken by some districts in the October to December cohort, data from a sample of 55 participants indicates that the children increased their Beep Test Scores over the 12 week period (from a minimum increase of 0.2 to a maximum increase of 4.5). Figure 4.4 shows these changes graphically:

Figure 4.4: Changes to Fit Kids Beep Test Scores (week 1 and 12) Oct – Dec 2010 ***(source: Toolkit)***



In terms of long-term measurements of the impact of the project, whilst all had a reduction in BMI at the end of the 12 weeks for the October to December group, when measured again at 3 months, only the City of Lincoln and one group of West Lindsey's still were continuing to reduce their BMI, as seen in Table 4.4. What, of course, cannot be quantified from the impact of the project is that the project may have had a significant effect on stopping a greater rise in BMI than might otherwise have been, had there not been the programme. Parents, when talking to the researcher, often reported concerns that their child was consistently putting on large amounts of weight that they could not control or limit. When comparing some of the figures, for example within East Lindsey, 2 of the 7 participants still have a lower BMI 3 months after taking part in the project than when they started, implying that they have still benefited from the project. Indeed, in terms of perceived changes in 'positive behaviours', East Lindsey has one of the highest changes as seen in Table 4.3, which may illustrate how difficult the gap is between being aware of the need for change and the reality of enacting it.

District	No. of kids	BMI						
		Wk 1	Wk 12	Change	%	3 mths	Change vs Wk 12	%
EL	7	26.4	25.8	-0.6	-2.3%	26.8	1.0	3.9%
Cof L	19	24.2	23.7	-0.5	-2.1%	23.3	-0.4	-1.7%
WL	9	25.6	24.4	-1.2	-4.7%	23.8	-0.6	-2.5%
NK								
Boston	6	24.5	24.0	-0.5	-2.0%			
SK	8	21.5	21.0	-0.5	-2.3%	21.2	0.2	1.0%
WL2	25	19.4	19.1	-0.3	-1.5%	19.5	0.4	2.1%
SH	7	23.6	22.8	-0.8	-3.4%	22.9	0.1	0.4%

Table 4.4 Changes in BMI at 12 weeks and 3 months – *Source LSP/Toolkit*

4.4.2 Qualitative Findings

In addition to the data collated by monitoring and the Fit Kids Toolkit observation of programmes, a review of additional evidence such as the Fit Kids Journals and discussions with service providers and families was undertaken to both understand that nature of impact and what families have particularly found of value from the programme. This complements the results of pre and post attitudes for both participants and their family in changed behaviour towards many aspects of health behaviour as detailed in results for the October-December cohort in Appendix 3.2. This details that the most positive changes noted from parents and children are the children being more happy with the 'way they look' and their body image, understanding more about healthy eating including eating more fruit and vegetables, drinking more water and being more active. They have also recorded changes within family dynamics including more activity within the family.

Journals

The Fit Kids Journals record the changes in participant's daily lives in terms of exercise and healthier food patterns and provide an opportunity for both the children and their family to observe themselves and reflect on their lifestyle. In one Journal, for example, the diet changed from the first week where foodstuffs such as crisps, cake, chicken nuggets, chips, ice creams and biscuits featured

heavily to the end of the week where the diet was much healthier. Snacks had been changed to include fruit and yoghurts and potatoes eaten instead of chips, with a generally significant reduction in 'unhealthy' foods. The participant themselves reflecting on the changes within the diary that it looks a '*lot different, more healthy'*.

Indeed, most schemes considered that what was of particular importance was the ability of the scheme to provide improved esteem amongst a group of children who generally lacked confidence and self-belief to join in, and changed their attitudes and beliefs about what they were capable of.

Interview Data

In discussion with families and service providers the wider impact of the project was reviewed in its effect on everyday lives and how it was engaging participants to change lifestyles. The ripple effect of the project is also seen in the effects that it has also had on interaction with other children and families, for example, children having water and fruit at sleepovers with their friends, rather than coke and sweets.

"It is more than about exercise it is also a plan for life with healthy eating and exercise. Before going my child was disinterested in exercise, did not want to even get the bike out or do exercise but now is motivated to get biking and busy and get involved in other exercise. They have also liked the activity sheets... now we go shopping they say Mum can we have this and that, they want the healthier options, look at the descriptions on the food packets and so do we so it has an effect on the family. The healthier options therefore rubs off on the family."

"As parents it has been good to go along and be involved in some of the sessions. It is then very holistic. At the opening sessions we have been fully informed and communicated with and that is important as children need support in what they are doing, we have also then had the opportunity to ask questions ourselves and be more involved. The school have noticed the difference – they now enjoy rounders and netball and taking part in team sports. They have the confidence now and ability to mix with others. The mixing with other people has been very good for her and she has really enjoyed it. Before she would not attend dance classes, didn't have the confidence to do that, as she felt that she was tall and fat and that she stood out also in gymnastics, but she has been comfortable exercising in Fit Kids without realising that she is. She is kept motivated and there are obvious benefits – she is sticking to the exercise."

"They are now very aware of healthy food and look at labels, there is now much more informed choice by them and within the family which they didn't previously consider. They never realised before, for example, about whether cereal bars are really healthy, what are good snacks and what are not. But it is done in a balanced way, so they don't get obsessed about weight and being overweight. It is very good to hear it from other people, what is good for her it is not a parent or a teacher, someone that they like and trust and will listen to."

"My daughter has had some bullying for being slightly fat so we needed to get her some more exercise and get active. Being part of the sessions has had an effect on us our diet has changed as a family and now we have crisps as a treat not all the time as we used to – we also are cycling a lot more than we used to rather than using the car, which is more family fun. It has also provided my daughter with more confidence as she has been very shy and wouldn't join in team games so this has made her much more a team player."

"It makes you more aware – it now takes twice as long to go shopping as they keep looking at all the product labels!"

"We have cut down on chips whereas we used to have them 2 or 3 times a week, now it is more like once a week she would be 'demanding' that we eat them"

"She is starting to stop eating sausage rolls for breakfast, she now will consider cereals and toast' and will eat cereals for supper instead of packet of crisps."

4.5 Summary - Challenges and Future Development

The Fit Kids scheme has, over the two years, moved from a programme that lacked central direction and objective to one that has both value for its family participants and has a county wide unity, through the Toolkit and setting up of processes for family involvement. Its impact on physical fitness, obesity and healthy lifestyles being evidenced through the evaluation measures of the toolkit and qualitative data undertaken with the research.

As a pilot its main difficulty still remains in gaining sufficient engagement and participation from families, for whilst need exists in terms of rising obesity levels, that is not being met with recognition and participation from the maximum number of families that could participate. There is hence a need for more 'champions' and increased 'goodwill' towards the project within schools and from health professionals. Where schemes have been supported by the heads of local schools, as in the case of Gainsborough, this has made a substantive difference.

Given that obesity is now at the centre of the programme for referral and it has a robust and increasingly evidenced framework, its value needs to be more recognised by health professionals and planners as part of their referral pathways and strategy. This may mean further developing and standardising the project. As the EPPI centre (2008) found in their mapping of all schemes for obese and overweight children in England there are many different approaches that can be adopted dependent on funding and capacity. Moreover, as the present Fit Kids programme identifies, it is equally about having families ready to change and this means any development must contain more, rather than less, involvement with families.

Further research to determine what form that might take should include stakeholder perspectives, to ensure engagement. In a time of financial cutbacks, it is likely that funding for more intensive schemes will be difficult to obtain, given that as EPPI (2008) found even the less intensive interventions are resource and staff intensive. Whilst the scheme may continue to be delivered by established local providers as the most cost effective route, support in providing expertise and training in areas such as social marketing, behavioural change and nutrition will be a continuing requisite. Developing schemes by, for example, extending opportunities to take part in physical activity at the end of the programme, might add significantly to effect. It may equally not be about adding numbers to the scheme, but working more intensively with smaller numbers within the funding allowed, thereby recognising that reducing health inequality and achieving sustained behavioural change require long term processes.

A consideration for the scheme and future funders is the provision of support for other age ranges. Whilst 8-11 has been concentrated on to feed into national measurements at Year 6, the EPPI's (2008) review of over 300 schemes found that schemes including Carnegie, MEND, Watch It and Be Active all have a wider age range of participants from 7-17. Given that obesity rises with age and Lincolnshire has no schemes for younger and older age groups (besides the Play4Life pilot) this gap in provision and strategy is something that will need to be considered further. The geographical spread of the scheme may also be an issue given that, as a mainly rural county, provision is presently based in towns. Whilst the scheme may continue to be delivered by established local

providers as the most cost effective route, expansion and development may require wider delivery routes and alternative expertise as considered in the following recommendations.

Recommendations

- As a project dealing mainly with the specific health related problem of childhood obesity as well as improving fitness levels there needs to be more overt referral pathways by health professionals, as presently this represents a lost opportunity and under-used resource.

- Increased support by health and educational professionals is required to overcome the problems of sensitivity and perceived stigma surrounding the 'marketing' of the project. This will require increasing partnerships and networking within the project at a strategic as well as operational level.

- More research is required in the long term effect of the project in terms of families as much as the 'outcomes' on the individual child, as well as determining the barriers and enablers to change.

- Consideration should be given to widening the age range of the project given the present gaps in provision as well as the geographical access of the project.

5. VITALITY

5.1 Overview

Lincolnshire has an increasingly ageing population. Indeed, the Joint Strategic Needs Assessment (JSNA:2010) outlines that the largest percentage growth is expected to be in the group of people aged 75 years and over, increasing by 30% between 2006 and 2016 and by more than 119% between 2006 and 2031. Those aged 65 years and over are projected to rise from 20% of the population in 2007 to 25% in 2020 and 29% by 2031, from 145,600 in 2009 to 257,000 in 2030. The projected population aged over 85 years is equally expected to grow significantly by nearly 150% to 46, 300 by 2030.

There are corresponding health demands from such changing population demographics in terms of both physical and mental well being, not least how to keep the population as active as possible and reduce physical and mental health conditions and problems that are more prevalent with longevity. Age UK, for example, have found that around one in three people aged over 65 living in the community and one in two people over 85 will have a fall, with resultant physical and emotional consequences. This equally has an effect on demand for health service resources, with more than 2,300 emergency hospital admissions in Lincolnshire being the result of older people having falls (JSNA:2010). It is moreover projected that the number of people aged over 65 with a long term limiting illness will rise by 68% from 65,280 in 2010 to 109,087 in 2030 (LRO:Poppi).

Moreover, there are issues such as social isolation as an older population is more at risk of bereavement and living alone, with more than 36% of the over 65 population currently living on their own. This is projected to substantially increase by 84% from 33,722 in 2010 to 62,233 in 2030 (LRO:Poppi). It is also significant that it is in the more rural districts of East Lindsey, West Lindsey, North Kesteven and South Kesteven (where communities are often small and not easily connected by public transport and facilities) that the greatest increase in people aged over 65 living alone is projected. Effects on mobility and the loss of friends and family are all seen to have a further interactive effect on susceptibility to depression and reduced mental well being, with a projected 65% increase of depression and severe depression within the over 65 population from 16,715 in 2010 to 27,536 in 2030 (LRO:Poppi).

The priority is consequently how to continue active physical lives for as long as possible in an increasingly older population. Indeed, the increasing evidence from studies as 'Promoting Mental Health and Well-being in Later Life' (Age Concern and the Mental Health Foundation, 2006) identified physical activity and maintaining a good diet as the key components of physical health, which had a further positive impact on mental well being. The report concluded that action at a local level enabled the most value added impact and that 'healthy ageing programmes' should be established to encourage older people to take advantage of opportunities for meaningful activity, social interaction and supportive contact with physical activity.

5.2 Vitality Classes and Participation

It is against this context that Vitality seeks to enable older adults to be more active and thereby achieve positive effects on their physical and mental well-being through physical activity and social interaction. The Vitality scheme was adapted from the Extend national programme of exercise for older people. It started in North Kesteven District Council when a dance worker within Arts NK had set up dance sessions for older people at the same time that Extend had 3 small classes which they wished to develop. Arts NK became the host organisation for what would become the re-branded and designed Vitality project. In doing so it has developed a distinctive approach that has

been recognised, for example service providers from differing areas including Northamptonshire, Yorkshire and the South West have visited the scheme to discuss if they can adapt it in their counties.

The gentle seated or standing exercise classes mainly use music and physio-based movement to aid exercise and provide a number of benefits to participants such as improved mobility, balance and co-ordination. The classes are aimed at those aged over 60, or for younger participants who have medical conditions that make these supported classes more suitable. The classes are run by trained teachers who direct the class according to the particular needs of the group, which may range from those who are fit, to others with health conditions such as arthritis (that restricts movement and flexibility) with the emphasis that all can join in the activity regardless of their ability.

Classes take place in a variety of communities; ranging from isolated rural villages to small market towns, and are based in leisure centres, village halls, sheltered housing sites and nursing and residential homes. The Community classes are 'open' to everyone to attend, with the figures detailed in Table 5.1 for those participants who attend these classes. In addition a number of closed classes take place for medical groups and nursing homes and as taster sessions, with an average of 80 additional people attending each week. the addition of an extra 80 people per week, or 960 people per quarter enhances the statistics, for example, year 2 Quarter 4 has in effect a total of 4360 participants. From 1st April 2011 a further 8 new classes will be added, so next quarters figures will be for 37 community classes.

Table 5.1: Throughput Figures for Vitality 2009-11

Dates	Year	Quarter	Number of Participants	Number of Classes	Average per Class
April – June 2009	Year 1	Quarter 1	3933	37	8.17
July – Sept 2009	Year 1	Quarter 2	4251	40	8.18
Oct – Dec 2009	Year 1	Quarter 3	4893	41	9.18
Jan – Mar 2009	Year 1	Quarter 4	4118	39	8.12
April – June 2010	Year 2	Quarter 1	3724	38	7.53
July – Sept 2010	Year 2	Quarter 2	3914	29	10.38
Oct – Dec 2010	Year 2	Quarter 3	3110 (poor weather from 27/11)	29	8.25
Jan –March 2011	Year 2	Quarter 4	3400	29	11.24

5.3 Funding and Participation Rates

The main costs for this project have been project management, administration and teaching costs at £64,537 for 2010-11 and non salary costs at £23,242 (including room hire, mileage costs, marketing and refreshments). Funding over the 2 years has been through a mixture of sources including class fees. In the period 2009-11 this has included the following:

2009-11	£80,900 from NHS Lincolnshire
2009-11	£20,000 of non-recurrent funding from the Health and Wellbeing Fund
2009-11	£15,000 from public and private sector including Lincolnshire Co-op, Tesco, South Kesteven District Council, West Lindsey District Council and Comic Relief
2009-11	£76,000 Class Fees

The project is therefore based upon a mixture of subsidy from the Choosing Health Budget and the contribution of the participant on a roughly 50:50 basis. The non-recurrent funding from the Health and Wellbeing Fund in 2009-10 enabled the establishment of 15 new classes in areas of health deprivation around Gainsborough, Boston and Grantham. Classes in these areas paid £1.50 per participant compared to £2-£2.50 in other areas, providing them with an opportunity within the year to set up and become a sustainable group with the extra funding that was provided. By April 2010 ten of these groups had sufficiently built up numbers and capacity to continue.

Twelve paying members are needed for a community group and 9 for sheltered housing classes. To provide further long term sustainability to the project and to meet potential funding shortfalls, a subscription system is now in place. This involves the participants paying £15 for 6 weeks, with 4 weeks allowed off per year for holidays and other occasions when they cannot attend. People wishing to try the activity can still participate without paying for the first time to see if it is suitable for them.

The effect of placing the onus on groups to be more self-sustaining is that the model has become more about being clubs for members, than just isolated classes, which in itself has an effect on momentum and maintaining consistent participation rates on an individual and group basis. Discussions by the researcher with participants on the subject of the subscription were viewed positively given that they considered that they *'couldn't do without it'* and with most classes there was an expectation of paying 'up front' to assure that it would 'go ahead'. The general consensus was that it was extremely good value for money at £2.50 per session given that they also were provided with refreshments. The comments being summed up as *'where would you get such support and a cup of tea for that price*?' In some groups volunteer co-ordinators collect the money and many groups also manage the funding, so that, for example, a number of the class members may fund the necessary 6 weeks thereby covering for other people who might come less frequently, or find it more difficult to pay in advance.

The groups that have been lost following the changes in payment have mostly been those in sheltered housing where there have been three main problems in maintaining attendance. Firstly those who are relatively fit and active did not want to attend an 'open' sheltered home class, secondly there is often limited space of where they can exercise, compared to, for example, a village hall. The third problem is that people who are in sheltered housing tend to be frail and are less likely to attend regularly or at all, so the combination of the three issues has meant that these have mostly folded. Small open groups that were equally not sustainable have now also stopped, and the project now concentrates on those classes that have proved (with the time and extra initial

support that the funding) to be viable. The addition of 8 classes in the first quarter of 2011 indicates that capacity for growth and more classes still exists within the county.

5.4 Lessons Learned

5.4.1 County Wide Approach – Unity of Project

A countywide approach, as adopted by Vitality, was considered to provide best value for money and efficiency than having several independent exercise trainers working and often duplicating activity. When the present co-ordinator took over although exercise classes for over 60s were being run as part of Extend they were seen to be 'disjointed' and 'ad-hoc'. Given that the instructors were self-employed there was no unity in approach at a county level, as to which classes were provided where or any expectation of what was to be expected in terms of service characteristics and delivery. Through the setting up of Vitality and directing it as a county-wide approach a consistency in terms of training of instructors, service provision, branding and publicity could be achieved, providing something specifically for the target audience and what is most applicable for them in terms of exercise. The countywide model has also allowed the opportunity to ascertain from a strategic perspective, where gaps exist in provision and provide the time and support to set up a class. This would be much more difficult if classes were to be operated only by independent and private instructors. The remaining gap of provision in East Lindsey being something that is currently being targeted of how to be addressed.

5.4.2 Building Capacity – Marketing and Partnerships

Vitality has found that in order to get people increasingly active it is necessary to take a pro-active approach and target the funding and take a countywide approach to build up knowledge and involvement with the Vitality brand. It has also found that participants and project partners need sufficient information and explanation of the project to inform their decision to take part. Developing a co-ordinated Vitality brand through various channels of promotion and advertising was therefore essential to its growth; reaching participants and local services still unaware of Vitality, as well as continued support of existing classes. As one instructor related *'advertising the activities is a constant battle'*, but that they were in a much better position as part of a generic activity, than advertising as an individual instructor.

The use of funding from the Health and Well-Being Fund, to set up an excellent and user friendly website and to get a local firm to produce a short DVD outlining the project's benefits has been central to creating a marketing strategy that attracts both new participants and the support of health professionals. This has been complemented by the co-ordinated publicity of the Vitality brand through logos, tee shirts, flyers and posters. The tee shirts have fostered increased unity amongst participants who enjoy wearing them and report that it gives them 'belonging', and hence it ultimately effects their participation in the activity.

Partnership working has equally been found to be very important to achieve economies of scale and cost effectiveness in terms of strategy, delivery and increasing communication channels. Working with organisations (such as Age UK who have their own exercise programmes as Fit as a Fiddle) and campaigns such as falls prevention, has provided opportunities for promotion of the scheme through taster sessions and displays and also collaborative discussions on how to get an older population engaged with activity. Local publicity and word of mouth has continued to be one of the most effective ways of continuing momentum and participation.

Branston provides a particularly interesting case study and model to examine when unpicking the complexity that can influence all the factors that determines a group's success. Following a healthy lifestyle study undertaken by North Kesteven District Council in 2008 (in which respondents had requested a need for an over 50s keep fit class in the village, the local council responded with arranging 12 free Age UK exercise classes in 2009. When the 12 weeks finished Branston Parish Council (in recognition of this continuing need) were prepared to subsidise starting up Vitality Classes in the village by hiring their pavilion free of charge from April to September 2010, 'to allow the class to be established'. This then allowed Vitality to charge £2 initially (instead of £2.50) and build up the class. Following this initial support the group in Branston has continued to flourish from around 10 to now over 20 members and they have had to move the venue to Branston village hall because the pavilion was too small. Participants wear the Vitality tee shirts at sessions and have organised many spin offs from their group (including dinners out). It is this combining of partnerships and advertising pathways that is at the centre of much of Vitality's growth.

Whilst gaining the support of local councils and districts has proved a very effective model in helping groups to set up, there have nevertheless been differing levels of signposting and support, with consequent effects on the potential to join a class and the areas in which Vitality is most visible. Similarly, whilst health trainers have been very involved with the project recognising that it can be helpful to their clients, GPs have had a mixed response. Whilst some GP clusters refer clients to Vitality to help with their continued problems (for example following physiotherapy) others are not. Networking and partnership working at a countywide level therefore remains an important component of continuing to determine where need still exists for more participation in activity and how it is to be delivered. It is in this respect that Vitality is now working closely with the NHS Cardiac and Respiratory Services in Lincolnshire and the Stroke Association, to provide specific support and safe exercise for patients who are recovering from a stroke or heart attack. Vitality is becoming recognised as an activity which can deal with particular and generic health problems.

5.5 Service Characteristics

In order to achieve sustainability and growth it was important to develop an appropriate service for the target group to attract participants, foster regular attendance and increase activity. In learning what are the levers and barriers to participation the following factors emerged as being central to the success of this type of project; the role of the instructor, the location and venue and the appropriate levels of exercise.

Many conditions of older age such as chronic knee pain and similar skeletal and muscular problems are regarded as Hurley et al (2007) consider as the 'mundane, inevitable, unmanageable consequences of aging.' Moreover, that *'people intuitively appreciate that movement is good for joints but associate movement with pain. In the absence of appropriate advice they become confused, frightened, and refrain from activities they believe may cause harm*'. It has therefore been central to Vitality for its instructors to reassure and guide those participants who have, for example, had hip and knee replacements in the past, that they can take part in and build up their confidence to do more, both within the classes and at home. It was important to learn how to meet the spectrum of needs and abilities within a class and how to provide the 'right' level of exercise for the group and the individual. Due to the abilities of the people in existing classes some were considered to 'be more active/'upbeat' or more sedate' this led to difficulties when a more active participant joined a less active group or vice versa then the instructor would need to help the new member to 'fit in' as well as addressing their physical requirements.

Finding the 'right' community venue has also been of importance. Most participants reported that they valued the convenience and ease of classes located in their own communities, although it has been recognised that providing classes in the smallest villages has not been viable and therefore classes have mostly been located in larger villages and small towns. Where possible classes have been provided for a cluster of villages, as in the case of Ruskington, which attracts members from surrounding smaller villages. Participants also preferred the 'softer' venues of, for example, village and church halls that contrasted with that of a gym environment. As a participant related, *I thought that at 78 I really had to do something otherwise I was going to get to the point where I couldn't do anything and this was just right. I went to a gym but never really used it, I didn't like it… this is much more what I wanted. You get the exercise – but it is in a fun way. When I went to the gym it was just so serious and I did not want to do that.*

The conscious decision to provide tea, coffee and biscuits and an opportunity to sit and talk at the end of each session was seen as an important part of fostering the social side of the groups and has had both an effect on the psycho-social impact of the project and fostering group cohesion, ultimately effecting sustainability with the noted changes in funding and the subscription scheme. Getting more men to join the groups (as 80% are women) is a continuing challenge, with the consideration that men in the area who had often worked on the land or been in the forces wanted something a 'bit more active'. Although most men attending the classes accompanied their wife or partner those that did participate were as active in the group dynamics as the women and there were instances where following a bereavement the man had been supported by the group to continue participation.

5.6 Impact

As Vitality is based upon instructor-led community classes upon which attendance is the main form of monitoring, interviews and group discussions with participants were undertaken by the researchers and exercise diaries were completed by a small sample to determine the impact that the project has in relation to the wider determinants of health. In particular to understand how Vitality fits into and develops activity in older residents' lives and the effect that this has on health conditions and outcomes, social and community well-being.

5.6.1 Physical Activity and Health

Exercise diaries and discussions with respondents have shown how Vitality provides a regular form of weekly exercise that promotes a more active lifestyle within daily household activities and lifestyle, such as housework and gardening and also aids active recreation in other areas of physical activity such as walking, swimming and dancing. Indeed, respondents in their exercise diaries recorded an average of 13 hours activity per week, ranging from 3hrs 30mins to 21 hrs and 30mins, with a median of 12 hours. They also reported a high percentage of daily activity with all in the diary sample being active for 30 minutes and more over 5 days and 71% for 7 days. Given that this is an older age group with a mean age within the sample of 74 years, a median age of 75 years and a range from 64-81 years this indicates that amongst this age group (where as seen in Section 1 activity levels are generally declining) projects such as Vitality provide pathways to be more active in both everyday activity and active recreation.

That Vitality delivers its exercises in a group situation was seen to motivate people to do more than in an individual situation. As participants reported you *'think well if X can do it so can I'* and that within the group exercise takes place without them realising just how much activity is being undertaken; '*they are aware of their aches but they tend to do much more in a group situation'*.

This interaction between the structured activity that Vitality provides and clients daily exercise patterns relates its effects through a number of ways in the diaries, with a strong effect being that as the classes are based in local communities participants are able to take advantage of the social, physical and environmental benefits by walking to and from the class, rather than using their cars or having to rely on (often limited) public transport:

'Walked from Grantham Road to Sleaford for an hours exercise class. Walked home 1 and a half miles altogether. Gardening in the afternoon 1 hour'

'Walked to exercise class 1 hour, did shopping, walked home instead of getting bus'

'I now am able to walk much further than I did – also walk here and back which is extra exercise'

Participants in exercise diaries and discussions therefore related the short and long term effects that Vitality was having particularly in reference to increased stamina and ability to engage in daily activity and active recreation and how it had significantly helped health conditions that they had particularly in relation to issues such as arthritis, osteoporosis, flexibility, co-ordination and balance, mobility and musco-skeletal problems:

'I have rheumatoid arthritis and have gold injections so coming here to the Vitality classes is very good for me – I feel so much better for it. When I have come here I can walk up to get my gold injections so much better. The exercises do really help. You are using joints and muscles that you wouldn't otherwise use. Otherwise you just do bits and pieces and you don't exercise the whole of your body.'

'I used to go to the gym and have a rowing machine … but I can't do that anymore it is too much for me and my knees, so this is really suitable for me, so that I can continue exercise.'

'We are using balls for co-ordination that we have not been using since our school days and that gets to the parts that we don't normally use. I have arthritis in my hands and this is really helping to get me moving and can now do much more than I could at home.'

'Doing some of the exercise movements at home is keeping the joints mobile'

'It has really helped my back and neck – can move much more freely – I do some of the exercises at home, not everyday but I do them to help'

'It helps with your aches and pains …it makes you feel much more supple in your joints'

'It helps me to continue to be active as I am blind'

Instructors reflected that maintaining and increasing mobility and flexibility was central to the enabling of active and independent living for their participants in both the short and long term. Equally improving fitness levels for the more active members and gaining their confidence in many cases to restart exercise meant that it was often a stepping-stone to other exercise such as Tai chi or gentle yoga exercises.

Classes in nursing homes (where the emphasis is on co-ordination and exercising hands and feet) also assist with preserving independence and increasing activity in everyday living. Helping participants to prevent falls and enabling them to undertake routine daily tasks, such as doing up

buttons on clothes, feeding themselves and walking around the home and grounds would foster a dignified and full lifestyle.

5.6.2 Psychosocial and Community

Given that one of the issues particularly effecting Lincolnshire's ageing population is the high proportion of people living alone (often in isolated rural communities) and the consequent greater susceptibility to depression, when this is combined with the evidenced positive effect of physical activity on mental well being, one of the major impacts of projects such as Vitality are the positive social benefits, both at an individual and community level. This was particularly demonstrated in the Vitality celebration held at the Epic Centre in June 2011 where the benefit of interaction on well being was very visible in the 'buzz' of the 300 participants taking part, which is replicated weekly in individual Vitality groups and community halls across Lincolnshire. Indeed, when asking participants about Vitality and what effect it had, most responded in terms of the impact as a group as much as reflection on individual outcomes. That exercising in a group was seen to motivate people to do more than in an individual situation, with an emphasis on 'we' rather than I:

- *'We are developing all the time and I am doing much more than I could at the start'*
- *'People get more involved with exercises in a group than doing the same things at home, you meet people more and socialise more in classes, like Vitality'*
- *'The group is brilliant … it gets us going … helps us with our co-ordination in a fun way. It provides us with confidence and the instructor works us hard to do exercise'*
- *'You think well if X can do it so can I'*

The social element of the classes for those who attend regularly was therefore seen as important as the physical, indeed that the two were inter-related:

- *'It is fun socially and actively'*
- *'I am keeping fit and getting a good social life'*
- *'Vitality classes with groups the same age are very good for socialising and exercise and enjoyment well spent'*
- *'If you enjoy getting together with other people it is good socially and great exercise'*
- *'Absolutely makes life pleasant and enjoyable'*

Instructors and participants reported that Vitality particularly provided opportunities to socialise for those living alone who were often isolated and may not 'see someone from one week to the next'. For some it therefore was a reason to get up and out regularly one day of the week, especially in winter when they were more likely to stay at home. As one participant related; *'in winter it gets me out as you don't want to get out of the house for 4 months*'. Hence the classes became an important point of contact and groups would often check up on their more vulnerable members if they did not turn up for class. Subsidiary events, such as Christmas meals and group outings added to the momentum of communication and networks within a community that were fostered by the social dimensions of Vitality's groups. Moreover, the use of community venues fosters more activity within villages and small towns and promotes the growth of community capacity.

Within sheltered housing and nursing homes the impact on social interaction has been equally important. Bringing residents together in communal halls (when there tends to be limited inter-action) was considered a way to break down the isolation that can still be prevalent in shared accommodation. When observing classes in nursing homes, researchers noted that getting participants to look up and call each other in sharing a game with soft balls was as much about

increasing communication and interaction between residents, as improving flexibility and mobility in their wrists and arms.

5.7 Case Studies

The following case studies gathered by Vitality indicate (as with the interview data and the exercise diaries) the multiple inter-related effects that the project has had on the health and social well being of a range of individuals with differing needs and lifestyles.

A 69 year old female from South Kyme started her Vitality class 3 years ago with the aim of seeking to get fitter and improve her health. She attends the South Kyme village class on a weekly basis and has found that since attending she has felt 'less stiff' within her joints and muscles and generally had a feeling of wellbeing. Due to the improvements in joint mobility, she has found climbing the stairs at home to be a daily task that has become easier since starting classes. Although she has worked in the village for the past 15 years, she felt that she did not know many local people. However, since joining the Vitality class, she has met many more local people. Indeed, when she recently had an operation on her hip, not only did her more active lifestyle aid her recovery, but several members of the Vitality class went to visit her which made her realise just how many friendships she has made through the group.

A 74 male from Caythorpe joined his local Vitality class in the village 3 years ago to start exercising gently and also to make new friends. He attends the Caythorpe village class on a weekly basis and has found that his balance and coordination have improved significantly since starting the class. He has also found that his hands and fingers are moving more freely despite having Parkinson's Disease. He finds climbing the stairs easier and since starting classes he can now fasten his shirt buttons again. Whilst he did not know anyone in the class before starting, he now looks forward to the weekly group and a ‘natter’.

A 97 year old woman from Grantham has regularly attended the class that takes place within her sheltered housing complex for the last 11 months, having missed only one class. Other than the Vitality class, no other activities take place within the sheltered housing complex, so the class is the only opportunity for residents to get together and share experiences. This therefore is the only time that she comes down from her flat, other than when her daughter takes her out, and (as there is no lift) she feels an enormous sense of achievement from walking down the stairs. She believes that the exercises have helped improve her arthritis symptoms; particularly in her shoulders, wrists, ankles and hips and it has really helped to prevent stiffness in her joints. As well as the medical benefits, she really enjoys being able to catch up with the other residents and visitors who come in to take the class from outside the complex after a ‘well earned cup of tea’.

5.8 Summary and Future?

Uncertainty about future funding is itself a factor in the development of Vitality as other projects. The capacity to set up further groups is considerable particularly in area such as East Lindsey with its increasing proportion of older people. However, with an uncertain funding climate there is cautiousness about setting up further groups, however growth is still nevertheless taking place; with an additional eight classes starting in April 2011. Where possible parish councils and districts may need to provide extra support (in terms of free or reduced venue hire and advertising) to ensure that classes (at least in the short term) are supported through this uncertain financial context. It is equally how the project fits into new and emerging programmes at a county and district level, such as LSP’s ‘Behind The Fence’.

Vitality's sustainability and basis for growth nevertheless remains that it is a cost effective intervention dependent upon its present model of joint contribution by user and funder, with an average of a funding subsidy of 27 pence for each participant attendance during 2009-11. Should funding cease the instructors could take over the classes as a private concern, but this will mean that the unity of the project that has been built up and its county direction will be effectively lost, in terms of strategy, delivery and promotion. Private classes, must of necessity be firstly determined by economic considerations than where need most exists. In placing the onus on communities to take responsibility for their own activity Vitality is nevertheless well positioned; based as it is on group activity and cohesion to still develop and grow. It is still however the case that new groups will need time, support and funding to get established. With small amounts of funding already from commercial funders, such as Tesco and the Co-op, a social enterprise model of funding might need to be developed in the future.

Ultimately as populations such as Lincolnshire's increasingly age and the associated health and social costs rise, the role of programmes such as Vitality will become more central to maintaining physical activity and preventing and dealing with the chronic ill health and mental health conditions in older people. Indeed, as Hurley et al (2007) argue it is to the cost-effective group intervention that combine exercise with self management that primary care will need to look, rather than the more mixed and limited effects of medication or the more costly alternative of, for example individual physiotherapy: *'As more people live longer and patterns of incidence change, safe, effective and efficient interventions that improve functioning and can be delivered to large numbers of people will be needed'.*

Recommendations

- Vitality should be supported to expand where gap still exists as in the case of East Lindsey given the rural isolation of much of the area and that as a district it has the highest percentage of older residents both living alone and suffering from depression within Lincolnshire (LRO:Poppi).

- Pathways for health professionals to refer and signpost to Vitality should be developed given its ability to act as a prevention programme for active older adults and to help those with specific health needs as those recovering from strokes and heart attacks.

- Vitality offers a model of engagement and participation that can act as a reference point for future projects given its effective blending of public and independent resources to provide an intervention that is both valued and economically supported by participants and delivers public health objectives. Given that funding issues will become more prominent in the present economic climate, this is a factor that will become increasingly important, as to how more can be delivered with the same quality of intervention for the same or less funding.

- Further research into the impact of Vitality would require as in similar community projects tracking and longitudinal studies of effect that would necessitate a more resource intensive approach in terms of both time and costs and the greater input of the participant and potentially health professionals.

6. OVER 45'S PHYSICAL ACTIVATOR PROJECT

6.1 Overview

6.1.1. Context

As population data in the Vitality sector has indicated one of the particular challenges facing Lincolnshire is its increasingly ageing population; both in terms of its effects on health profiles, costs and outcomes for the county and how to keep the population more active for longer. Sport England's Active People Survey (APS4), for example, identifies in its demographic data how within Lincolnshire participation in sport and active recreation steadily falls with age from 35.5% in the 16-34 age group to 27.7% in the 34 to 55 age group, but then rapidly declines to 14.1% in the over 55s. In this respect organisations such the East Midlands Health Development Agency (HAD:2004) have identified in scoping work that the implications for a changing age balance of the population is the need to recognise and focus on those over 50. Moreover that there should be a shift in policy approaches, 'midlife needs to be a new focus on older people's agenda, where the emphasis has traditionally been on the frailties of old age and dependency. We need to plan now to influence the health and well-being of the next generation of older people'. These HDA (2004) recommendations on 'improving health and well-being' and routes to active healthy ageing for those aged 50-65 complemented the DoH (2003) Programme for Action that identified 'targeting the over 50s among whom the greatest short term impact on life expectancy will be made'.

It is against this background with Sport England segmentation data for Lincolnshire indicating that the over 45's was the largest target market, that a need for provision of a wider range of activities for the over 45's age group was identified. The Over 45's Activators Project was therefore set up in 2009 to target the priority group of over 45's by developing projects which would be particularly suitable to engage the client groups and motivate them to continue more active lives. Over the 2 year period of 2009-2011 a budget of nearly £293,000 was given to support the project with £137,000 coming from Sport England funding and £141,000 from the Lincolnshire Health and Wellbeing Fund. Its overall aims (that met wide national and regional sport, community and health objectives) were to:

- Improve the physical activity levels of the over 45's across Lincolnshire
- Improve the health and well-being of Lincolnshire's population
- Increase participation in sport
- Development of safer, stronger communities in Lincolnshire through sport
- Recruit and involve volunteers
- Improve the skills of people (volunteers)
- Help existing and new clubs build capacity
- Improve the levels of obesity across Lincolnshire's over 45's population

Despite it being a county-wide project the large geographical nature of the county, meant that the project was delivered by four Over 45's Activators within the following areas of East Lindsey, West Lindsey, North and South Kesteven and Boston and South Holland. The 4 Activators were managed by the Physical Activity Manager of the Lincolnshire Sports Partnerships, but 'hosted' by the Sports Development team of each District, so that they had office facilities within each district as a base for developing projects in their area.

The remit of the activators was broad in that it provided new and sustainable opportunities for group activity. In effect the Activators have both set up new activities as instructors and facilitators, or

found other instructors and programmes to start a new club or activity. The model was based on the Activator having 10 weeks to deliver, or set up an activity, and then find volunteers and/or instructors to take over the group to foster the sustainability of the project. Most groups paid a small contribution towards the activity to pay for such costs as hiring of halls, use of equipment and instructors. Activators have equally supported groups in their applications for funding, such as buying equipment for kurling, to secure the long-term sustainability of the groups. A sustainable model for groups being at the heart of the project's aim, with widening participation ultimately depending on the ability of communities and individuals to be empowered and take responsibility for increasing levels of physical activity.

6.1.2 Targets and Monitoring Data

Table 6.1: Data 2009-11 - Over 45's Activators

	Target Year 1	**March 09**	**June 09**	**Sept. 09**	**Dec. 09**	**March 10 (Total)**
Participants Total	640	69	482	533	925	1200
Throughput Total	6400	69	1132	2719	6059	9910
Female Participants	320	35	365	403	675	874
Female Throughput	3200	35	822	2109	4669	7633
Male Participants	320	34	117	130	250	326
Male Throughput	3200	35	310	610	1390	2247
Volunteers Female	71	0	10	21	56	68
Volunteers Male	71	0	11	11	18	20
Coaches Female	24	0	5	6	9	16
Coaches Male	24	0	2	2	5	8
	Project Target (Year 2)	**June 10**	**Sept. 10**	**Dec. 10**	**March 2011**	**Total**
Participants Total	1440	416	478	496	424	1814
Throughput Total	14440	5750	5281	5572	5382	22525
Female Participants	720	319	329	385	354	1387
Female Throughput	7200	4346	4399	4182	4226	17153
Male Participants	720	97	149	111	70	427
Male Throughput	7200	1404	1424	1383	1158	5369
Volunteers Female	129	4	21	18	6	49
Volunteers Male	129	14	23	22	26	65
Coaches Female	56	12	6	21	17	56
Coaches Male	56	5	1	4	3	13

Source: Lincolnshire Sports Partnership

As seen in Table 6.1 participation and throughput figures have significantly increased over the years and targets were met or clearly surpassed in most areas, male participation and throughput being the

main area where there has been greater difficulty in engagement as will be discussed in Section 6.2.5.

6.1.3 Set Up and Growth

Since the inauguration of the project in March 2009 83 new groups have been set up between the 4 Activators as follows, most of which will continue to be sustainable.

North Kesteven and South Kesteven	25 groups
Boston and South Holland	14 groups
East Lindsey	25 groups
West Lindsey	19 groups

A wide range of groups and activities have been developed by the Activators over the 2 years including Tai chi, New Age Kurling, New Age Bowls, Pilates, Aerobics, Fitness Sessions, Salsa Dance Classes, Ball Room Dances, Zumba Dancing, Walking, Nordic walking, Cycling. Golf, Seated Exercise, Table-Tennis and Badminton. These have, in part, reflected the particular background and expertise of the Activator and the approach taken by them. The nature of delivery has also been affected by differences in communities within the areas, the facilities that have been available and the partnerships that could be built with local organisations and volunteers and other physical activity projects. Although this was a countywide project it has therefore led to some differences in activities amongst the areas, which is reflected in the activity mapping that has been undertaken.

Developing new clubs and activities has not been an easy process and much has been learned about the process and systems of building capacity for more physical activity within the over 45's age group.

6.2 Lessons Learned In Development

6.2.1 Mapping

One of the most important lessons learned early in the project was that the first 3-6 months was mainly taken up with understanding firstly which instructors and opportunities were available in order to expand participation and secondly how to put together the instructors, activities and venues so that they could be used to maximum opportunity. Activators therefore had to undertake their own audits of venues and networked with, for example, parish councils and existing community groups in order to identify appropriate pricing and availability for the various activities and what demand and capacity there might be in different locations.

6.2.2. Direction

That the over 45's project remit was extremely wide and innovative was both an opportunity and a challenge for the Activators in deciding how best to set up groups. During the fist months of the project there were three managerial changes that led to confusion in communication and the direction of the project. There was for example, a lack of clarity in whether in setting up groups Activators could be instructors, or rather just organise the instructors. Those Activators who were instructors (as in the case of the Activators for North and South Kesteven and Boston and South Holland) therefore tended to continue this role and bring their particular expertise to the groups, such as setting up dance groups in North and South Kesteven and Nordic walking in Boston and

South Holland. Whereas in West Lindsey (where the Activator's background was not in exercise delivery), the model concentrated on booking instructors rather than delivering classes directly. The proactive stance taken by the project manager in the middle and latter phase of the project was essential in clarifying direction and roles, organising regular team meetings and support for the Activators. Moreover, the manager encouraged increased unity and discussion of the project in team meetings and such events allowed for the increasing transfer of ideas, support and activities between the areas, even if differences still existed at the local level. The pooling of good practice and shared 'teething troubles' at a countywide level was central to branding and development.

6.2.3 Partnerships

In the early stages of the project the lack of clarity about structure and role was an external as well as internal issue. Given that Activators could set up varied activities one of the problems that they encountered in the first stages of the project was sometimes unwittingly setting up a group or activity that duplicated the work of partners such as 'Fit as A Fiddle' or Vitality in a particular location, with consequent displacement effect. Increasing communication channels and undertaking joint analysis of current and potential opportunities for activity was therefore at the heart of the latter part of the project.

Collaboration with the New Age Kurling and New Age Bowling project has been a particularly successful strategy, given that one project could provide the loan of equipment for activity and the other the personnel to find suitable venues and communities and help set up the clubs. New Age Kurling has therefore proved to be a particularly widespread activity amongst the areas and the subject of further partnerships to increase capacity. Within North Kesteven and South Kesteven, for example, partnership working with the Stroke Association, Age Concern, U3A, care homes and Mencap has meant the setting up of a number of groups bringing together diverse and often separate parts of the community. Horizontal working with other physical activity projects such as Health Walks has both helped to set up and develop new walking groups. These have included activators setting up herbal walks as part of West Lindsey's community health walks to diversify and retain interest from a wider range of participants and playing an important role in helping the new co-ordinator in North Kesteven to set up new health walks.

Whilst some districts were considered to be more active than others in supporting the Activators, the role of district and local councils, leisure centres and health teams in helping facilitate the project (through the provision of venues, advertising and recommendations) has been an important factor in the success of the project. The use, for example, of the new Meridian Leisure Centre at Louth has allowed the engagement of people in a range of new activities such as table tennis and badminton in the over 45's project. The continuing widening of activity being dependent on increasing pathways and partnerships with both the private and public sector and corresponding scope for activity.

6.2.4 Timescales - Sustainability

One of the main difficulties in the early part of the project was for Activators to adhere to the 10-week model of support for setting up new groups. In getting groups started and having sufficient momentum to be sustainable it often took longer than the allotted 10-week period. This was seen to be for a variety of reasons including the difficulty of finding a suitable instructor/facilitator to take over if the Activator had been running the group, or requiring more time to develop sufficient numbers and volunteers within the group to make it sustainable. Most groups required considerable support from the Activators to gain momentum and sustainability, which has included payment for the venue to cover the costs of low initial attendance and obtaining the best possible advertising through channels such as the local press and radio, parish newsletters, flyers and posters and in

some cases (such as Tai Chi in West Lindsey) a feature on BBC's Look North. It was found not to be enough to place posters around communities and expect people to turn up. The first dance class in West Lindsey at Lea Village Hall only attracted, for example, a few people in the first weeks but due to the support of the Activator in promoting the activity and effective use of 'word of mouth', 15 people turned up for the fourth week and the instructor was able to start another class at Sudbrooke.

Finding the 'right' instructor moreover was found to be one of the key aspects of the success of the clubs and their sustainability, not just in terms of their expertise but reliability, to ensure that the momentum of the class is not lost. In some cases this has also meant identifying unusual locations to attract participation, the West Lindsey Activator, for example, used Richmond Park in Gainsborough and Willingham Woods around Market Rasen to start tai chi classes in the summer and people found them to be interesting and different settings for physical activity. This then meant finding alternative venues and moving the classes into suitable rooms in Market Rasen's Festival Hall for the winter to maintain continuation. Defining the role between Activator and instructor has often been subject to blurring and difficulty; in areas such as who is responsible for advertising and ensuring that data on participants is collated for the over 45's participation and throughput targets. Some instructors were particularly remiss at collating statistics on attendance.

Building up capacity in non instructor-led groups was equally seen as requiring time, so that there were sufficient volunteers to take over the running of the group and the funding of venues and equipments where required. To find £17 a week for use of some village halls or venues, or to finance their own equipment, such as Kurling stones, required volunteers in the group to take responsibility for hiring the venue and seeking funding for more long term needs. The challenge was therefore about persuading groups to take ownership and become volunteers. Aiding groups to find funding, obtain CRB checks for named volunteers and helping them navigate the various administrative paths to future sustainability consequently has (in many cases) taken longer than 10 weeks, but has been vital to the group's continuance. Learning how to best support a group to have a sufficient critical mass and self sufficiency and then gradually weaning them to achieving independent status being the developed model. Activators who concentrated on arranging instructors and clubs, rather than taking groups themselves, have found this to be an easier way to foster independence (with more time to concentrate on developing other groups) but both approaches have been adopted by the Activators with their relative levers and barriers to sustainability.

6.2.5 Participation Profiles

Although the target age group was the over 45's, all Activators learned that it was difficult to engage the 45-60 age group and that those participating were more likely to be over 60. This was thought to be because most people in the 45-55 age group work and the majority of activities set up by the Activators take place in the daytime. One of the main barriers was also perceived to be one of image, in that the younger middle aged did not necessarily want to be associated with activities associated with older people, so that branding was a central issue. Men (as seen in Table 1) also remained under-represented in the activities; this was thought to be because that men of this age group wanted to be more identified with more recognised sport activities. There had been efforts to get workplaces interested in the project with limited success, with the reflection that as most men in the target age range still worked the project would need to extend to evening sessions to attract them.

6.3 Impact

As the over 45's project has been community based and was dependent on monitoring data mainly concerned (as seen in Section 1) with numbers participating and throughput. Discussions with participants and groups and surveys and exercise diaries were undertaken to collate further evidence on the impact that the project has had. This has particularly gathered self-reported data on the motivation to take part continue and increase physical activity, the relationship between active living and active recreation and inter-related outcomes in terms of the widest health determinants in physical and social well being. The full results of the survey from the sample of 31 are detailed in Appendix 4.

6.3.1 Physical Activity and Health

Participation

Of the sample of 31 who completed the survey all took part at least once a week in over 45's activities, with a notable 70% taking part more than once a week. This is aiding a regular pathway and structure for physical activity for the sample who had a median age of 64, a mean age of 63 and a range of ages from 45-82. Indeed, within both the exercise diaries and survey, participants recorded quite a high level of physical activity. The sample within the exercise diary undertaking an average of at least 30 minutes of activity over 6 days and a total average of 12 hours a week, ranging from 3 hours to 21 hours. Whilst those sampled in the survey reported an average of 4 days of more than 30 mins activity per week, with 31% stating that they did more than 30 mins every day.

65% of those surveyed considered that taking part in the over 45's activities had enabled them to be more active in their everyday life, which was reinforced by responses in the exercise diary to the same question, together with general entries and comments. The main reasons given were greater flexibility, improved confidence and feelings of energy and fitness:

- *'Feeling like I am regaining my fitness and being able to do more'*
- *'Makes me feel more active to do things'*
- **'***It has encouraged me to be more active in my everyday life and helps to motivate/maintain the drive to be active'*
- *'Feel fitter when I was at work I had to sit a lot*
- *'Seem to have more energy and confidence'*
- *'Feel less lethargic'*
- *'More flexibility'*
- *'More flexibility in back and on legs'*

The physical and environmental effects of being able and 'encouraged' to walk more was also a re-occurring theme. As with other projects, such as Vitality, the placing of the over 45's activities in local communities, in itself provided an increased opportunity for participants to walk rather than use cars:

- *More keen to be involved in participation of physical activities – walking to places rather than taking the car*
- *It has encouraged me to walk as much as possible rather than use the car*
- *Walking quicker and healthier*
- *Less stressful than driving into town and environmental benefits too*

- *Walk on more days*

It is not just increased walking that has been facilitated by the over 45's project, 55% of people in the survey reported that because of participation in the project they are now taking part in a wide range of other physical activity. As one respondent related, '*Overall since starting at the Meridian I am more confident and willing to try things I would have never contemplated doing*'. This has included more vigorous levels of exercise and competitive sports such as swimming, aqua aerobics, cycling, hockey, netball aerobics, pilates, free weights, keep fit, zumba dancing, walking challenges, together with more 'gentle' exercise as New Age Kurling. What therefore emerges from the Exercise Diaries is a merging of Active Living and Active Recreation in understanding how different activities fit into creating more active lifestyles and approaches as with the following sample entries:

- *Tai chi 1 hour, Walking ½ hour, gardening and allotment 1 hour*
- *Worked in garden 45 mins, bowling 1 hour 40 mins and line dancing 30 mins*
- *Gym – cardiovascular exercises 1 hour, Kurling playing and supervising – 2 hours*
- *Swimming (40 lengths) 33 mins, Tai chi in the park 45 mins, Cycle 150 mins (22 miles approx)*

6.3.2 Physical Health

Given that 63% had cited health reasons as a motivation to take part in over 45's activities and that 65% felt that it had enabled them to be more active in their everyday life, it is not unexpected that there was a high response (of 80%) of people who considered that participation has improved their health profiles and specific health conditions. In particular as noted in 6.3.1 it is the sense of increased fitness and physical well being that is seen to increase flexibility and confidence to deal with and improve conditions; such as problems with breathing, joints and muscles, weight and blood pressure as shown in the following responses:

- *'The tai chi has really helped my physical balance and really helped my breathing. It is also very good for your joints'*
- *'Improved breathing'*
- *'I have lost weight – so I am less breathless'*
- *'Being more conscious in eating healthier options, keeping fitter'*
- *'Nearly can touch ankles, more flexible'*
- *'Finding new muscles or tired ones'*
- *'Encouraged me to do more exercise as my fitness has improved and I feel better. I have lost weight and noticed the difference'*
- *'Feel fitter and lost weight'*
- *'More able to run'*
- *'I have got more get up and go'*
- *'Has slightly helped and lowered blood pressure'*
- *'Feel much better physically, but also healthier i.e. seem less prone to catching colds'*
- *'Keeps me going and pain under control'*

6.3.3 Mental Wellbeing and Social Capital

The effect of over 45's activities was equally seen to have a significant effect on improved mental well being. This was seen to be the result both of the nature of the exercise and its social function, in that within groups and classes communities could come together and foster networks and

communication in often isolated rural locations. Indeed, 83% of participants reported in the survey that the most popular motivation to take part in the activity was for social reasons and that it was an enjoyable physical activity to engage in (63%), as much as for noted health reasons (63%). Tai chi and particularly that undertaken in the park, was for example seen to have a beneficial effect in the exercise diaries entries on a sense of 'well-being' and calming:

- *'This is one of my favourite classes time to completely relax and chill, this hour I feel is my time to release all the stress and strains and shut down, switch off just block you mind'*
- *'Tai chi – brilliant for sense of wellbeing and as the weeks progress it adds to sense of achievement. Outdoors is so good too!'*
- *'Tai chi! 8.15 am in park lovely to be outside in the open air lovely warm morning'*
- *'Tai chi is very special and I believe eventually it will help to still my busy mind. The activity is a contrast in my life. 4 years ago I had open heart surgery and although I have not always been active my wish to remain as fit as possible is more urgent'*
- *'It was brilliant doing Tai chi in the fresh air and exercising whilst feeling the wind at the same time'*

Physical activity (as already evidenced in the literature) was therefore seen as in the over 45's activities to have a positive effect in improving mental health conditions such as depression as well as general well being:

- *'Mentally, I feel so much better as I have suffered depression in the past, I think exercise has helped to avoid it this year'*
- *'Improved concentration'*
- *'More confident - I suffer with a bit of depression and exercise helps my mind as well as physically I feel better overall'*
- *'Mental state improved, less anxious and stressed. Sense of well being'*
- *'I feel more relaxed and very rarely get stressed'*
- *'After exercise I get a strong feeling of wellbeing. It cheers me up!'*

For those activities which have facilitated the setting up of clubs and depend on group interaction, such as New Age Kurling, dancing or Nordic walking, the social element and connections have intertwined in the effects that it has had on well being and the social determinants of health. The dance club at North Hykeham, for example, was helped to set up by a participant who (having worked in a local pharmacy) noted the number of older women living on their own who had few opportunities for social contact and the volunteer wanted to provide an activity that has provided both a physical and social benefit, as demonstrated by comments from the participants:

'They are great people and it is a social meeting with good exercise and someone to talk to. Some days I haven't spoken to anybody, no one has knocked at the door, the phone doesn't ring and nobody comes to see me, so I find this really good to see people.'

'It is a bit of company, a bit of exercise, you are doing exercise without realising what you are doing. It gives a purpose to the day. You can also learn how to dance, so you are learning new skills.'

Within the exercise diaries and survey the social benefits of the activities giving a reason to get up or out of the house and a structure to the week was equally evident, with these comments being typical;

- *‘The social side of the over 45’s has brought me out of myself and I go home feeling good about myself.’*
- *‘It has made my husband and I look forward to a Thursday afternoon, we have made some new friends and also learned to play and enjoy new sports’*

Moreover others reflected on the extra social spin-offs that participation had led to, such as a dance class taking part in the Lincolnshire Show; ‘*The weekly dance class sent five of us to demonstrate our dancing at the Lincolnshire show this year. With our teacher we appeared under the banner for Lincolnshire sport and leisure. This was great fun and created our friendship’.*

When asking the open question of what difference if any participation has made to their lives it is therefore not unexpected that the replies relate mostly to the themes of making ‘new friends’, and a ‘busier social life’. A general sense of ‘feeling more alive’ and gaining a ‘positive outlook and a more can-do attitude’ was valued as important as being more active and helping to overcome physical health problems. Overall there was a very strong response, with 90% responding that participating in the over 45’s activities will have a positive long-term effect on their health and other aspects of their life. Younger participants particularly reflected on how being active in early middle age would help them to live longer and fitter lives, whilst all ages considered that it would enable them to continue to have a healthier, fitter and happier lifestyle, improve the experience of ageing and counter health conditions, such as outlined in the following examples:

- *‘I think being active now will help me in later life to keep active and supple’ (45 year old female)*
- *‘Keeps me from getting old prematurely’ (49 year old female)*
- *‘To live happier’ (45 year old male)*
- *‘I hope it will keep me fit for many years to come and I hope it will continue to help me make many new friends’ (63 year old female)*
- *‘Keeping blood pressure and weight within certain limits’ (62 year old male)*
- *‘Makes me try to do things which I thought at one time were beyond me, but with encouragement from my wife and Tracey I give it a go and love it’ (72 year old male)*
- *Social, fitness, mentally and physical (82 year old male)*

6.4 Summary

In reviewing the outcomes of the programme the tangible and intangible benefits at a group, individual and community level are considerable, not least the impact on increasing physical activity, improved health outcomes, social cohesion and networks. Moreover as Activators considered the main success in a rurally isolated county such as Lincolnshire, was that clubs and classes were still sustainable and therefore that many more choices of physical activity at the local village level exist for the over 45’s to participate in. In areas such as West Lindsey and East Lindsey, where there are many small communities, the most positive legacy is the continued thriving of local clubs, classes and groups that are affordable, such as Southrey’s New Age Kurling Group which charges £1.50 per session. The increase and involvement of volunteers within the community has been an important additional benefit that feeds into both increased activity and empowerment within local communities.

As activities such as New Age Kurling, tai chi and Zumba dancing have become more popular, they also have been made more accessible through the mapping exercise, in bringing instructors, venues and local agency channels together. Supporting instructors and groups in the early stages to become sustainable has enabled more opportunities for opening and the expansion of classes. Eight tai chi classes have, for example, been set up in West Lindsey. Similarly many clubs require help with

advertising and funding in the early stages to ensure their long-term sustainability. The cross-referencing and stimulation of projects afforded by a countywide project and direction was equally an important factor; areas have benefited from ideas and activities in other districts, as well as mutual learning of how to overcome difficulties and of what works.

Activators considered that during the project they had probably reached a 'saturation' point of what had been offered as a menu of activity in the locations in which they worked, but that there were still opportunities for development. The Lincolnshire Sports Partnerships 'Behind the Fence' project, which seeks to engage more activity in community spaces, is one such project where the momentum and knowledge built up by the Activators on venues, communities and instructors can contribute. East Lindsey's continuing funding and support of their Activator (based in part upon an economic model) to maintain and increase participation in centres as Louth's Meridian Leisure Centre, indicates how economic arguments can combine with health and social reasons in a beneficial partnership between the public and private sectors. As with all short-term projects the end of a project can suffer from the loss of key personnel and motivation as they look for new appointments; the over 45's project has only lost one post in North Kesteven which has been covered by the Activator for Boston and South Holland in the latter part of the project. The emphasis shifted at the end of the project to establishing links between the Lincolnshire Sports Partnership and existing groups in order to retain connections and opportunities for aiding development.

Considerations for future projects and the gaps that the project has identified have been around how to engage the younger middle aged and the 45-60 age group, given that the over 60 age group have been most involved. This is not unexpected, given that as a retired group they have more time to participate and perhaps it is also due to the nature of many of the activities that have been developed, despite their wide range and inclusiveness. Men have equally been an under-represented group. The timing, nature and location of future activities for this age group is therefore crucial and more detailed scoping and analysis of need for this particular age group and gender split is required.

It is therefore recommended that in funding similar projects more businesses and local employers be targeted to be involved (where possible) in being centres and catalysts that can themselves expand opportunities for activity, given particularly that the workplace has become in many cases increasingly one of sedentary activity. This has been acknowledged by the Activators to be a difficult area to develop, but one in which the main area of change can possibly be effected, Siemens presently, for example, is setting up a well being agenda which could include routes of activity for its staff. The increasing inclusion of organisations such as supermarkets in dialogue and action around health and community is an important opportunity both for its staff and customers. In Holbeach the St Marks Community Gym has been supported by the local company Bakkover Pizza who provided a venue, fire and alarm testing as well as 24 hour CCTV monitoring is an interesting model of how the private sector can in many ways support new models of setting up activity together with public and third sector partners. Of equal importance is increasing and encouraging the role of GPs and health staff in signposting to activity, as a strategy to both help prevent and control many health conditions and build up mental well being from middle to old age. The recommendations from this project fit with the ambitions of the Motiv8Lincs project and should therefore be shared with the project manager.

7. NEW AGE KURLING AND NEW AGE BOWLS – INCLUSION PROJECT

7.1 Overview

7.1.1 Context

As 'Be Active, Be Healthy' (2009) considered *'People with disabilities are at particular risk from inactivity. For some people adaptations to equipment or facilities and/or structured opportunities for physical activity may be necessary to support participation'.* In this respect New Age Kurling was created by John Bennett to provide an activity that his disabled son and other disabled people could join in with. Based upon an ice-free version of curling, the use of adaptations such as pushers and ramps to deliver the kurling stone means that the game is inclusive, removing the need, for example to bend over for people with back and spine problems. It is consequently an activity that has developed as a popular and fun sport as it brings communities and groups together to play regardless of physical ability.

An Internet search on New Age Kurling has revealed how it is not only in Lincolnshire New Age Kurling and Bowling is being increasingly used as part of a strategy by government and third sector agencies to reduce health inequalities and increase participation and inclusion in physical activity. Age UK's South East programmes, for example, has recently introduced nine New Age Kurling courses and Fenland District Council support local New Age Kurling groups as part of their strategy in tackling health inequalities and providing a 'Golden Age' for its older residents. A pioneering project called 'Active Autism' has equally been launched in Southampton in January 2011 which through the use of activities such as New Age Kurling and Bowling aims to give autistic young people the confidence to make sport part of their everyday life and to 'be engaged in activities alongside other people as part of the community'. The inclusive nature of New Age Kurling and Bowling therefore to increase activity is widely recognised and its part in improving health outcomes. Indeed, New Age Kurling has been used as part of a rehabilitation programme in hospitals because it can be played without existing levels of physical fitness, its effects on exercising muscles and developing capacity for activity.

The New Age Kurling and Bowls project started as a pilot in West Lindsey with the physical disability team, who sought to provide more activities for clients with physical disabilities and for older people in adult social care. With £10,000 funding from Sport England 4 clubs were set up and the acknowledged value of the project led to the seeking of county wide funding to ensure that Lincolnshire as a whole benefited from its effects. Over 2 years from March 2009 to March 2011 the New Age Kurling and New Age Bowls project has received £25,000 from Sports England and £36,000 of non-recurrent funding from the Health and Wellbeing Fund to be matched by £36,000 in kind from the Districts. As a mainly capital project depending on the provision of equipment, this has formed the main part of the budget with £33,000 to date spent on kurling equipment and currently £8,300 for delivery as the next main expenditure. The project has been managed over the 2 year period by the Equality and Diversity Officer of the Lincolnshire Sports Partnership. Whilst the project finishes in March 2011 (in terms of present funding and monitoring arrangements) the clubs that have been set up and the momentum that has been engendered from them, in collaboration with the Over 45's project, means that the project will continue.

7.1.2 Targets and Monitoring Data

The evaluation of the project is dependent on the review of both qualitative and quantitative data including data monitoring and reports for the Health and Wellbeing Fund, continuing discussions with Ian Brown the Equality and Diversity Officer of LSP as to the development of the project, observation and on-going dialogue with New Age Kurling clubs and the use of surveys and semi-

structured interviews for participants. The full details of the monitoring data for the project are contained in Appendix 5: Part 1.

42 New Age Kurling clubs have been set up across Lincolnshire with 15 in South and North Kesteven, 5 in Boston and South Holland, 8 in West Lindsey and 7 in East Lindsey and Lincoln. In addition there has been considerable effort in initiating and providing opportunities to try New Age Kurling in non-public locations; such as nursing homes and special schools, with the distribution overall of 96 sets of kurling equipment and 80 sets of bowls around the county.

Targets and numerical data shown in Appendix 5: Part 1 indicate the success of the project in steadily increasing participation in the activity over the last 2 years and in terms of number of participants, particularly for female attendees. Targets for volunteers have also been surpassed. One of the problems given that the project depends mainly on volunteers within the clubs to collate attendance figures is that getting precise data of how many people have attended club sessions has been difficult, both in gathering and recording the data and reporting it to LSP. Schools have also not always returned their data, or been slow in doing so. Hence throughout the project the data has been recorded as much lower than the actual number attending and its consequent effect on reaching targets. This has resulted in the need for a more pro-active approach to collecting the data, with the project manager ringing up schools and groups at the end of 2010 to inform him of their figures, which is reflected in the notable increase of throughput participation in December 2010 for under 16s, male, female and those with a disability.

The much lower throughput in terms of participation by those with disabilities highlights that the project's original targets were orientated towards getting a large number of people with disabilities engaged in the project. This was seen to be difficult in terms of just attracting people from this target group, as the project also wanted to develop 'inclusiveness' and 'get everyone involved'. For whilst providing a means of exercise for those with a disability was central, it was also about providing activity that could also prevent the future loss of mobility amongst other people. Inclusion was also about bringing groups together in mutual activity regardless of physical ability and breaking down any potential barriers to attend.

7.2 Lessons learned from Development

In developing the project a number of inter-related factors have been seen as significant to its continuing growth and the sustainability of the groups. These have included the nature of the activity, the inter-action and support with other physical activity projects and partners, the role of the volunteer and community resources, marketing and funding opportunities.

7.2.1 Marketing

One of the key lessons that have been learned from the project is the need for 'maximum advertising' in order to develop participation. Particularly as New Age Kurling is something new and not a sport (such as football) where 'everybody knows what it is', advertising and communication of what the activity could offer has been seen as central. In this respect, the advertising budget has been extended from £2,200 to £3,225. It has also been seen as vital that it has been advertised as a 'sport for all'. Use of marketing opportunities such as taster sessions at the Lincolnshire Show and Waddington Air Show have proved to be particularly successful in conveying messages of not only what the activity is, but how it is applicable to a number of different target audiences and how it can be adapted to rural and urban locations and played by young and old, with or without disability. Local media coverage of the activity and its competitions (including a 'Look North' feature) has further provided promotion and awareness of the project. The use of the Internet in placing YouTube films of groups and competitions together with

databases and information on clubs in individuals areas on the LSP and group websites, such as the South Witham 'Swizlers', are all essential for widening information pathways. Gaining the support of a local community champion and getting them to help advertise has also been invaluable in getting clubs started and developed. Local founder members of the Saxilby Kurling Group, for example, related that to get people to come they 'advertised in the village and the local paper and word of mouth'. At the local level it is 'word of mouth' and the snowballing of contacts that has been particularly effective, as a participant at Saxilby kurling group related, *'At first we did say what is kurling? But we were persuaded by ... to come along. We said well we'll come along and see and now we come virtually every week'.*

7.2.2 Delivery

One of the main factors for the relatively easy nature of setting up clubs and fostering inclusiveness was the 'simplicity' of the activity. With the provision of kurling and bowls sets by the project and a venue, founder members of clubs only required two sessions of coaching on how to use the equipment and set it up without the need and cost of further instructors. Participants equally evidenced that the uncomplicated nature of the activity meant that those who had not previously been involved in any 'sport' organisation, or who have conditions that inhibit movement or strenuous exercise (such as arthritis, osteoporosis and back pain) could easily take part. Within special schools the lack of complicated rules has further fostered confidence in taking part in the sport, including inter-school competitions, as well as being used as part of the curriculum; for example the use of scoring to aid maths.

The partnership role of the over 45's project in supporting the set up of many of the clubs has equally been instrumental in securing sustainability for many of them, ranging from help with training, identifying and motivating volunteers, to applications for funding, which has compounded the in-kind contribution from districts in terms of resources, advertising and facilities. It was acknowledged that it was not enough to provide equipment; clubs also require support in the early stages to ensure that they retain viability.

7.2.3 Community Resource and Funding

Ultimately the sustainability of the project and the consequent ability of it to increase participation in physical activity is dependent on identifying key volunteers within the community to take 'ownership' and the responsibility of caring for the equipment and arranging the venue and its payments. Clubs that have particularly developed, such as South Witham and Saxilby, have at their core very pro-active individuals who drive the club and its growth, which in the beginning has not always been easy. South Witham, for example, has grown from a group of 4 to a buzzing group of over 30 who meet over 4 days of the week; *'We started with 4 people and have grown from that – people said you will never get anything off the ground in this village, nothing ever happens here and now see what has resulted'.* Similarly the Saxilby group recorded that 'it was a bit slow to get going', but now they have grown to 22 members, have a waiting list for the club and have increased the sessions from 2 to 3 hours as it has become so popular. Both clubs have a robust committee with a large number of people willing to support the club both in the Kurling and the social activities that develop from it.

A notable feature of sustainability is that 60% of the clubs have bought their own equipment, mainly through funding applications. As the costs of getting the equipment have usually been under £1000 they have been able to apply for small funding grants. Community orientated organisations such as the Co-op have been particularly supportive in funding, as have districts such as West Lindsey and East Lindsey. The advantage that the clubs have had in seeking funding is that the

project has loaned them the equipment in the first instance along with the time and support to build up capacity as a club. Hence they have been able to demonstrate to funders that the group is viable and the evidence that a need exists for activity and equipment. The LSP is renewing equipment loan agreements with Districts at the end of the project and will continue to recover any surplus equipment for re-distribution to other areas to ensure that kurling groups continue to be set up by districts where a need is identified; as in East Lindsey, which has a particularly ageing population.

Another indicator of the viability of the clubs and the strengthening of participation has been the introduction of competitions, both within and between clubs. Two competitions held at West Lindsey have proved to be very popular, with 27 clubs competing in 2010. A Saxilby participant commented; *'I've never played sport in my life, never been in competition in sport before but the day at West Lindsey was really good fun – a great day'*. Indeed as an activity the advantage of New Age Kurling is that clubs can meet and play from as little as 2 to 4 people to large inter-club competitions. The hook of being competitive can engage people, whether consciously or not. Saxilby, has, for example, developed its own singles knockout contest and a singles and doubles competition. A challenge remains in how to develop and arrange more competitions at a Lincolnshire level, given that it requires considerable organisation and administrative support at a time of cuts of funding within districts.

7.3 Impact

To complement the quantitative data reviewed from monitoring process in Appendix 5, Part 1, interviews with participants and surveys were administered within New Age Kurling groups to collate the self reported effects that the project has had in the widest context. New Age Kurling groups were selected given their prominence of the groups over New Age Bowling. This has included understanding the nature of change and levels of participation in physical activity, improving physical and mental well-being and effects on social impact on the widest determinants of health. The full results of the survey from the sample of 30 are detailed in Appendix 5, Part 2.

7.3.1 Physical Activity and Health

Participation

Of particular interest is that out of the sample of 30 who completed the survey 100% took part in New Age Kurling at least once a week and 17% twice a week, indicating that it was providing very regular and routine ways in which to participate in physical activity for a generally older population (within the sample there was an average age of 71). For those who participated least in physical activity Kurling has a significant contribution to overall weekly activity, with an average of 4 x 30 minutes activity for the sample. Moreover, for the 16% who considered that they were 'not fit', the programme was still seen as accessible and something that they could participate in, as reinforced by comments in discussions. A couple in which the husband had Parkinsons Disease, for example, recorded how this was just the '*right amount of exercise'* on a weekly basis *'I can take part in the games as I can only walk a bit. So once a week it gets me out to do some exercise and not just sit in the chair watching telly.'*

Overall 55% of those surveyed reported that it had made them more physically active. Indeed, many reported that one of the advantages of the activity was that as it was both 'fun' and in a group situation they often undertook more exercise than they realised; '*It is about enjoyment and fun – lots of fun and when we keep walking along the village hall we do cover quite a distance during an afternoon. ... We do quite a lot of exercise without realising it when you get home your legs are tired from keeping going'*. Moreover as the venues for Kurling are within local communities

participants often walk to the venue, with over 45's exercise diaries recording for those who have participated in Kurling repeated entries as *'Kurling 2 hours – walks to and from venue 40 minutes'*. The competitive nature of the activity both within the clubs and against others had also motivated them to do more; with several women commenting that it 'introduced' them to *'sport for the first time'*, as well as supporting people with restricted movement to re-engage.

31% reported that it had encouraged them to take part in another physical activity, which mainly included line dancing, carpet bowls and walking. 39% said that it had improved their health or a health condition. The most significant effect on physical profiles was seen to be greater strength, flexibility and suppleness from exercising of muscles, bending and walking up and down, as well as overall fitness levels. This was seen to help a range of conditions as problems with balance, arthritis, osteoporosis, diabetes and heart conditions:

'I have osteoporosis so I find that *Kurling really helps, after Kurling my bones are really loosened up, so it is really very helpful'*

'As I have had a knee replacement I find that the exercise is very good for it'

'*It is good as it allows me to be back to sport again, I did a lot when I was younger and this means that I can join in again. As I have arthritis I can't do so much, but with the stick I can do things and it is probably good for my arthritis'*

7.3.2 Mental Well Being and Social Capital

It is not surprising given the community and group nature of the activity that mental well-being and the social element of the exercise are given as one of the most important motivations for taking part and for its outcomes, with 70% taking part for social reasons and 66% for it being an 'enjoyable activity', compared to 27% for overt 'health reasons' and 46% because of having more leisure time. Given that social and community networks are seen as vital wider health determinant, the role of New Age Kurling in breaking down a sense of isolation in Lincolnshire's sparsely populated landscape and bringing communities together is seen to have both short and long term effects on individual and community health profiles.

Most clubs reported that having a cup of tea and 'time for a chat' at the sessions fostered adherence to the group and a sense of well being, particularly for its more isolated members, who may be widowed or new to a village, or to reconnect with old friends. This is built upon by arranging events such as monthly and Christmas dinners and inter-club competitions. In discussions and the survey participants therefore consistently recorded the social contribution of the activity and its positive effect on community and individual well being:

'I really like it, it is such a friendly atmosphere and it gets me out for a couple of hours a week otherwise the only thing that I do is go out shopping once a week. As I am a widow it provides me with some company'

'It has a great social aspect to it you can live in a village for so long and still not know any body and this was really helpful to me. Like many others we do not have family living close by so this has meant building up a whole social network for me.'

'The sessions here really good as they get me out of the house as I live alone – I don't know what I would do without it'

‘I’ve never had so many friends before.’

‘*I like it because its very social and fun – I really enjoy it very much with communication with lots of people. I moved here so it was a really good way of meeting people and also good exercise as you walk up and down. After the sessions on a Tuesday night we usually go for a pub drink afterwards. I wouldn’t want to go to a gym it is much better walking down here and seeing everyone and getting the exercise this way. It builds up the village community as the hall is used regularly by us’*

7.4 Sustainability

Funding for the New Age Kurling and Bowls project has therefore provided structures and opportunities for increased participation in physical activity within an inclusive county wide activity in which communities, schools and individuals have been able to take ownership and develop clubs and activities to meet their particular profiles and needs. Having supported set up mainly through loaned equipment, initial coaching and aiding community volunteers, 42 clubs and their developing membership are self-sustaining. For older and more vulnerable sections of Lincolnshire’s population the effect has particularly been that there are both short and long term effects on their physical and mental well being,

8. SUMMARY

Evaluation of the Choosing Health projects has involved a number of qualitative and quantitative approaches including analysis of monitoring and audit data, exercise diaries, surveys, observation and interviews to validate research evidence and provide a rich framework to understanding the processes and outcomes of project interventions. In particular to thematically explore the following inter-related factors, of which the findings are now summarised:

- Range of services provided by the programme
- Quality of services provided by the programme
- Access and barriers to services
- Community involvement and participation
- What is the value added – what is the value of impact on social benefits – the unintended consequences?
- Management and coordination of projects
- Use of resources

8.1 Range of Services Provided by the Programme

Funding for the Choosing Health and Health and Wellbeing Fund physical activity projects during 2009-11 has built up capacity in existing projects and developed new ones to provide a wide range of interventions in terms of structures and choices of activities in which people have been able to incorporate more physical activity as part of both active living and recreation. Interventions to foster and develop participation in physical activity incorporating projects that target varying age groups from the young within the Fit Kids programme, to initiatives for middle aged participants as the over 45's and those for older adults within projects such as Vitality. The diversity of the projects has also enabled inclusion for people with very differing physical abilities. New Age Kurling and New Age Bowls, for example, has provided opportunities for accessible activities that people can participate in regardless of physical ability. It has also been about providing very structured programmes such as Fit Kids and Exercise Referral for clients to participate in to much more flexible interventions, such as that of the over 45's and Inclusion project.

It is this provision of differing activities to participate in physical activity that continually contributes to moving the curve of 30 minutes daily activity, both at an individual and population level as measured by indicators such as the Active People Survey. In terms of overall numbers participating within the projects within 2009-11 most targets have been met or surpassed, with a general upward trend when reviewing comparative base data from 2008-9 as illustrated in Appendix 6. Moreover, as shown in Figures 8.1 and 8.2 overleaf, within the interventions of Health Walks, Exercise Referral and Fit Kids a total of 13,737 have taken part with a throughput of 165,364, with exercise referral alone having a throughput of 106,799. The over 45's and New Age Kurling and Bowling having 7,000 participants and nearly 60,000 throughput and Vitality an average of 3,000 and 4,000 throughput per month.

Quantitative and qualitative data within the exercise diaries, surveys and interviews have further evidenced how the interventions have acted as catalysts to further exercise and participation within parallel projects, such as within Health Walks, Vitality and New Age Kurling and Bowling, as well as enabling the ability to take part in other physical activities, together with more active living and recreation.

In terms of health inequalities whilst certain initiatives have particularly targeted deprived areas, such as walks within parts of Boston, Gainsborough and Grantham, the main effect has been on the

wider approach to the concept of health inequalities and gradients of health disadvantage as recognised in the recent Marmot Review (2010). As Graham and Kelly (2004) argue '*there are large numbers of people who, while they could not be described as socially excluded, are relatively disadvantaged in health terms. Preventative and other interventions could produce major improvements in their health proportionate savings for the healthcare system*'. Vitality, for example, in its provision of activity for those in nursing homes including those with dementia provides a service that meets the needs of some of the most vulnerable and isolated in our society.

Fig. 8.1 Number of Participants Health Walks, Exercise Referral and Fit Kids 2009-11

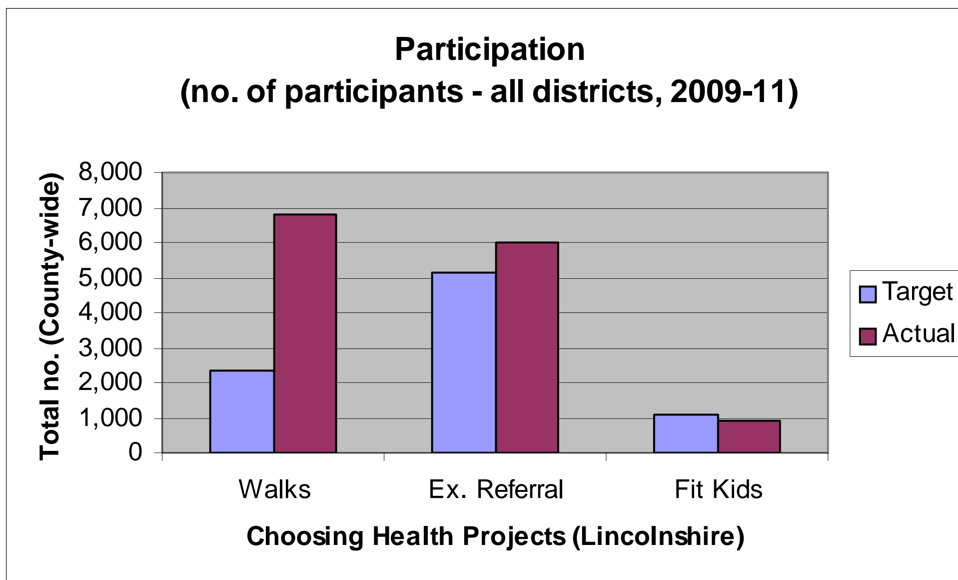
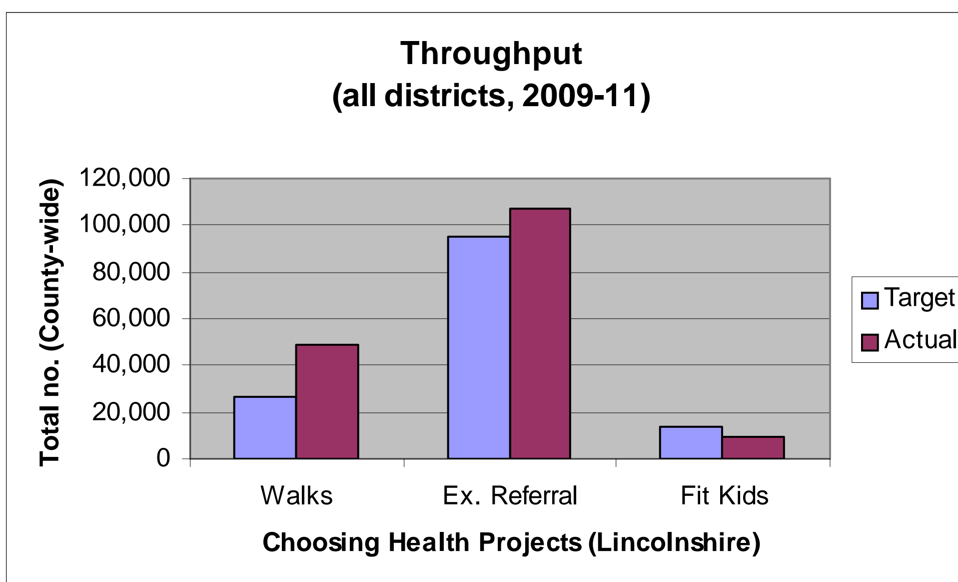


Fig. 8.2 Throughput of Participants Health Walks, Exercise Referral and Fit Kids 2009-11



8.2 Quality of Interventions

It is not only in terms of numbers that the projects are important but the quality of the experience that they provide and how this affects long term changes in physical activity and health profiles. Within structured programmes as Exercise Referral and Fit Kids this is dependent to a great extent on the ability and expertise of the instructor to motivate and support change, whether in a one to one or group situation. In Exercise Referral structured support is particularly key to engagement and continuation with the programme, including as related in the research encouraging participants to take the first step into a gym environment and maintaining one to one guidance. Hence it is about providing a very different quality of experience to exercise.

This has also involved in the case of Exercise Referral, Vitality and New Age Kurling and Bowling providing exercise in an environment in which those who have medical conditions or problems with mobility have felt 'safe' and reassured to exercise. Indeed, that such interventions provide an alternative in some cases to medicine, or augment services such as physiotherapy, in which people having problems arising from conditions such as hip replacements can be helped to deal with post-operative problems, as much as being preventative programmes. Within community-based interventions such as Walks and the over 45's projects, the commitment and professionalism of instructors and volunteers has equally been central in ensuring that the activity provides support to take part.

It is this quality of the intervention that underpins regular attendance, change and improvements in health profiles as evidenced in the monitoring and research data. Participants consistently reported in interviews, exercise diaries and surveys the positive outcomes that the activity had on physical and mental outcomes in addition to improved fitness levels. The function of physical activity in acting as a preventative programme being central to the public health outcomes framework detailed in the 'Healthy Lives, Healthy People' White Paper (2010) in tackling of the wider determinants of ill health and the promotion of healthier lifestyles, reducing morbidity and avoidable premature deaths.

8.3 Access and Barriers to Services

As projects that rely on voluntary participation and recognition of the need for change, all have recognised the need for continuing marketing and promotion, even in exercise referral, which relies on referral by health professionals. Developing groups or gaining the confidence and interest of individuals to take part is not an easy process and requires (as Dugdill argues) the bringing together of the sports/exercise and marketing/promotion paradigms. Involving target groups and those who are under-represented in participation profiles remains a continuing challenge for projects, determining where under-capacity and gaps still exists in terms of provision, geography and 'market' segmentation.

Continuing to provide different ways to approach and take part in exercise for all age groups is the key to development, given that participants have reported the success of very different 'hooks' to projects, in terms of structure, environment and activity. From walks and tai chi against a backdrop of outdoor scenery to support and 'traditional' exercise in gyms, choice is what lies at the base of continuing participation. The provision of activity with the absence of specific cost as in the case of walking groups, most exercise referral schemes and Fit Kids, or at a subsidised or nominal cost with free taster sessions has equally meant that there have generally been no initial monetary barriers to participation and determining whether an activity is suitable for an individual.

A strong theme that emerged both from the qualitative data and the surveys was that gaining the motivation and confidence of participants to take part and continue with physical activity was due

to social reasons and the activity being 'fun' and enjoyable', as much as it was instigated by health reasons. Engaging in activities such as Health Walks, Vitality or New Age Kurling were seen as forms of exercise that provided important social activity and structure to daily and weekly activity, aiding well being in a holistic view of improving health conditions and prevention. Entries in exercise diaries, constantly referred to the positive effects of exercise and its ability to enliven and invigorate the day from social interaction and a sense of well being from the activity. Even within the more structured programmes of Exercise Referral and Fit Kids the emphasis on enjoyment of the activity was essential. The short term benefits from taking part in feeling more positive about body image and achieving personal exercise goals, being recognised as beneficial as long-term effects on health profiles. Participating in group activity was equally seen to be both an incentive to take part and engage in more exercise than individually, as group dynamics enabled participants to do more than they felt capable of on their own.

Health professional signposting and referring to projects remains presently mixed despite constant representations by district co-ordinators to GP clusters, health and hospital services. This is particularly notable in Exercise Referral, which is dependent on referral through health systems. The Fit Kids programme with its sensitive issue of obesity has raised particular issues of how to advertise and engage participants in the programme. Few schools or health professionals have to date supported pathways into the scheme by referral or advertising, where support in promotion of the project has been available as in the case of Gainsborough schools, it has been shown to be extremely important factor in the recruitment to the sessions and the success of the project. In relation to community led projects such as WfH walks and Vitality health professional signposting and referring to augment health and provide alternatives to medication, was equally seen as often a lost opportunity in health screening and appointments. Securing the on-going contribution of health professionals and related stakeholders in the projects is therefore vital to the capacity of the projects to provide and meet unmet need and is central to developing the physical activity care pathways recommended in 'Let's Get Moving (2010) .

In widening participation the most common noted source of expansion was the use of 'word of mouth' together with local exposure and advertising through leaflets in communal places, or adverts in parish and village magazines. This is often a cost effective approach, but equally means that participant profiles tend to be reinforced, as similar age groups and gender tend to be encouraged to attend within friends and family.

The profile of these projects, not unnaturally given their remit, has tended to be dominated by older participants and women. Given the increasing ageing population of Lincolnshire, the number of people living on their own and the rise of associated health conditions (such as falls and depression) the provision of projects that meet this health gap and enable more active living is important. However, the need is also to continuously review 'market' segmentation and encourage more male and younger participants to take part, particularly those in early middle age, families and young people in order to influence future activity patterns. Increasing links with businesses, employers, youth organisations and mother and toddler groups and providing schemes that are more flexible in times, approaches and activities is consequently important and something that most walking schemes, for example, have sought to achieve in order to engage younger participants.

8.4 Community Involvement and Participation/Social Benefits – Added Value

The effect of these interventions has not just been at the level of the individual, but that of the community. The provision of activities such as the Over 45's and Inclusion projects in village and urban locations across Lincolnshire has particularly enabled smaller and isolated rural areas to set up activities that have brought a social and economic impact on their community, in addition to

health benefits. Indeed the increase in community capacity by bringing communities together to take part in physical activity is notable in the research. The use of community resources as village halls has allowed them to be positively utilised, as well as enabling alternative and convenient ways for participants to take part in exercise, without the problems of limited public transport, or the need to use cars, which in itself has a further effect on activity and the environment. Having opportunities to socialise over cups of tea during or after the activity and the arranging of inter-competitions and social events, such as Christmas dinners all contribute to the development of social and community networks, which are vital to wider health determinants (Dahlgren & Whitehead, 1991).

The role of the community volunteer is also central both to the long-term sustainability and development of projects, as much as increasing the skills and confidence of the individual. Such skills have been transferable into employment opportunities, with volunteering and community capacity central to the Government's concept of the Big Society. The expansion of schemes has equally had a direct input in increasing the capacity within rural communities for more physical activity classes, providing further opportunities for the work of both self employed and public sector instructors, with an inter-related social, economic and health impact on communities.

8.5 Management and co-ordination of projects

Evaluation of the projects has demonstrated that whilst allowing for local solutions and management of initiatives, having a system of county wide management and co-ordination has not only meant the exchanging of ideas and good practice, but also the opportunity to standardise the quality of interventions across the county. The example of Vitality demonstrating how countywide management has provided a consistency in terms of training, service provision and delivery, branding and publicity, as well as determining where gaps exist in the provision of services.

In monitoring and evaluation, systems have become more robust and meaningful. Collating data, not just on the numbers attending, but who is attending where and why and understanding the varying patterns in the data provides essential information about the experience and provision of the project and its outcomes. The use of the Toolkit in Fit Kids to measure physiological and qualitative changes in participants, the introduction of the Exercise Referral audit and utilising the detailed and sophisticated Natural England WfH database to record and analyse walking data have all provided a comprehensive way in which projects can reflect on performance and implement change.

The Fit Kids and over 45's project have also demonstrated that although new programmes are by their very nature subject to innovation and change in the preliminary stages, what is also required is strong initial central direction and rationale for projects. As an example, the framework of the Toolkit for the second year of Fit Kids by the Physical Activity Manager of the LSP has given clear and specific boundaries to the programme, whilst allowing for local approaches to its implementation. It has also meant a standardising of districts in terms of understanding outcomes and impact.

8.6 Use of Resources

There is complexity in the present use of resources within projects given that interventions have generally developed from existing local frameworks of delivery and service provider and are at various levels of establishment, so that there are many different ways in which a project is delivered and resourced within districts. Exercise Referral and the Fit Kids programme have particularly demonstrated as structured programmes that there are many variables that underpin performance in relation to costs, including readiness to take part and change on the part of the participants. Cost being only one factor when weighed against variables such as throughput, completion and output

and the most cost effective approach not always the most effective in terms of overall outcomes. Securing the engagement of hard to reach groups has been proven to particularly require extra resources in terms of time and trying different approaches which has to be factored in when seeking to diversify target groups and areas.

Setting up and expanding projects equally requires considerable time and resources, particularly in the initial stages and in developing capacity and goodwill with partners. It is therefore essential that the capacity built up in funded projects adds to further programmes. The Lincolnshire Sports Partnership's 'Behind the Fence' project which seeks to engage more activity in community spaces is one such project where the momentum and knowledge built up by the over 45's Activators on mapping venues, communities and instructors and gaps in provision can contribute'.

Funding at the present time is an issue that affects all projects; service providers have reflected that they have not wanted to diversify and add to projects that they are uncertain of continuing. Uncertainty about jobs also obviously affects staff retention towards the end of projects, however the over 45's project was nevertheless successful in both being able to build in exit strategies for the supported projects from the beginning of the second year, as well as its activators finding employment at the end of the project. Most of the personnel concerned with project delivery have continued to show a high motivation and commitment to the projects and participants that has not been affected by their own uncertainty about their job futures.

Sustainable and cost effective approaches to funding and continuing projects is dependent in many respects on the capacity of volunteers and communities to take responsibility for the running of groups and activities as seen in Health Walks, the over 45's Activators Projects and New Age Kurling and New Age Bowls projects. Moreover, as the Vitality project and indeed these other projects have demonstrated charging a reasonable amount for an activity, such as £2.00-£2.50 will get people to attend and commit to regular participation and provide a more social enterprise model of delivery.

As projects develop and districts are not in a position where some are more established than others and a more countywide approach is adopted, there should be more opportunity to determine comparative use of resources within districts. More work and analysis can then be undertaken in this area by the LSP and Lincolnshire NHS in their co-ordination and management role, to determine the differing variables and costs and how future funding should be allocated.

8.7 Future Funding

Whilst the projects have provided many routes by which participants can be involved, there is a sense still in which they are viewed in silos, rather than representing part of a broad physical activity strategy. A wider branding of the projects under an umbrella concept, such as that already undertaken by 'Active Derbyshire' and 'Active Norfolk' with (in Derbyshire's case) the example of a well publicised 'Active Derbyshire Plan' (2009-13), would enable a more visible strategy than that presently seen in Lincolnshire, bringing together both funded and non funded activities and identifying where gaps still exist. It is on this basis with more pro-active support from health professionals in every stage of projects ranging from referral and signposting to determining strategy of where programmes should be targeted and indeed new projects initiated that further funding should be based. Overall the additional nature of the projects is the providing of interventions which otherwise might not be available by independent and private providers, or which support participants in various ways to take part, removing potential barriers that may prevent engagement and helping them develop lifestyles that promote active living and recreation.

Appendix 1: Part 1 Health Walks Monitoring Data 2009-11

	Health Walks				
	Participants	Throughput	Walk Sites	Partners	Volunteer Walk Leaders
Boston Borough Council					
Targets 09.10	90	900	5	5	18
Actual 09.10 Total	298	4636	4	2	22
Targets 10.11	100	1000	3	0	15
Actual 10.11 Total	185	5765	8	0	5
Overall Target	190	1900	8	5	33
Overall Actual	483	10401	12	2	27
City Of Lincoln					
Targets 09.10	125	1250	3	1	20
Actual 09.10 Total	298	735	6	1	22
Targets 10.11	125	1250	3	1	20
Actual 10.11 Total	280	1330	6	1	6
Overall Target	250	2500	6	2	40
Overall Actual	578	2065	12	2	28
East Lindsey District Council					
Targets 09.10	230	583	4	3	8
Actual 09.10 Total	841	1606	24	9	92
Targets 10.11	230	583	4	3	8
Actual 10.11 Total	138	2407	15	6	0
Overall Target	460	1166	8	6	16
Overall Actual	979	4013	39	15	92
North Kesteven					
Targets 09.10	0	0	0	0	0
Actual 09.10 Total	86	408	4	1	5
Targets 10.11	140	1400	6	1	6
Actual 10.11 Total	131	1942	5	3	9
Overall Target	140	1400	6	1	6
Overall Actual	217	2350	9	4	14
South Holland					
Targets 09.10	370	1250	4	4	23
Actual 09.10 Total	1034	4421	5	5	54
Targets 10.11	370	1250	4	4	23
Actual 10.11 Total	587	2840	15	10	54
Overall Target	740	2500	8	8	46
Overall Actual	1621	7261	20	15	108
South Kesteven					
Targets 09.10	30	900	3	5	6
Actual 09.10 Total	378	4308	12	2	24
Targets 10.11	30	900	3	5	6
Actual 10.11 Total	251	4301	9	17	53
Overall Target	60	1800	6	10	12
Overall Actual	629	8609	21	19	77

West Lindsey					
Targets 09.10	250	7500	13	13	30
Actual 09.10 Total	1138	7176	13	13	30
Targets 10.11	250	7500	13	13	30
Actual 10.11 Total	1142	6846	96	31	44
Overall Target	500	1500	26	26	60
Overall Actual	2280	14022	109	44	74

County	Participants	Throughput	Walk Sites	Partners	Volunteer Walk Leaders
Targets 09.10	1095	12383	32	31	105
Actual 09.10 Total	4073	23290	68	33	249
Targets 10.11	1245	13883	36	27	108
Actual 10.11 Total	2714	25431	154	68	171
Overall Targets	2340	26266	68	58	213
Overall Actual	6787	48721	222	101	420
Difference	4447	22455	154	43	207

Source: Lincolnshire Sports Partnership District Reporting Data 2009-11

Appendix 1: Part 2 Health Walks – Health Conditions of Participants April 2009- September 2010

District		Total Reg Walkers	Heart Condition	Balance Issues	Bone Issues	Chest Pains with PA	Chest Pains without PA	Heart Disease	High BP	COPD	Diabetes	Asthma	Totals
East Lindsey	Reg Walkers	352	50	44	68	5	1	40	85	210	34	27	564
	Walk Hours	5029	1195	682	932	195	125	1215	1660	8	588	540	7140
													0
West Lindsey	Reg Walkers	511	33	19	12	6	3	32	104	5	23	46	283
	Walk Hours	10854	950	586	509	446	247	834	2356	292	649	1101	7970
													0
City of Lincoln	Reg Walkers	254	16	19	25	5	3	8	40	0	12	22	150
	Walk Hours	1427	145	136	206	134	103	103	300	86	146	192	1551
													0
South Holland	Reg Walkers	265	22	15	23	2	2	10	61	1	9	12	157
	Walk Hours	5157	568	424	496	154	209	388	1425	153	400	310	4527
													0
Boston	Reg Walkers	442	40	21	31	18	14	30	90	8	22	35	309
	Walk Hours	7376	654	454	650	522	255	534	1991	210	410	993	6673
													0
North Kesteven	Reg Walkers	152	13	6	18	2	2	9	34	2	11	11	108
	Walk Hours	1502	103	62	65	19	19	53	367	24	73	118	903
													0
South Kesteven	Reg Walkers	46	2	1	0	0	0	2	10	0	1	2	18
	Walk Hours	621	27	33	11	11	11	19	148	11	38	48	357
Totals	Reg Walkers	2022	176	125	177	38	25	131	424	226	112	155	1589
	Reg Walkers	*31966*	*3642*	*2377*	*2869*	*1481*	*969*	*3146*	*8247*	*784*	*2304*	*3302*	*29121*

Source: Lincolnshire Sports Partnership/ Walking for Health Database

Appendix 1: Part 3 Community Health Walks Survey

Profile of Participants:

Number in survey (n):	31
Age Range:	25 - 88 yrs
Av. (mean) age:	60 years
Median age:	62 years
Interquartile Range (ages):	50 - 67 years

Generally: early retired age-range (50-70)
Twice as many females to male participants

	M	F
no.	6	20
%	33%	67%

Very similar to National data on gender
(Natural England website)

Fitness Levels of participants:

Q: 'How would you describe yourself?'

Programme attracts people who are mostly fit
(although some may wish to get fitter)
Only one person thought they were not fit

Responses:

		% of responses
Very Fit	4	13%
Fit	25	83%
Not Fit	1	4%

Participation:

Q: 'How often do you take part (in Walks)?'
Evidence of regular participation
over 90% walk at least once a week
(30% do the walks more than once a week)

Responses:		% of responses
<1 per week	3	10%
once a week	18	58%
>1 per week	10	32%

Q: During the last 7 days on how many days did you walk for at least 10mins at a time?

Responses:		% of responses
<3 days	3	10%
3 to 5 days	13	43%
>5 days	14	47%

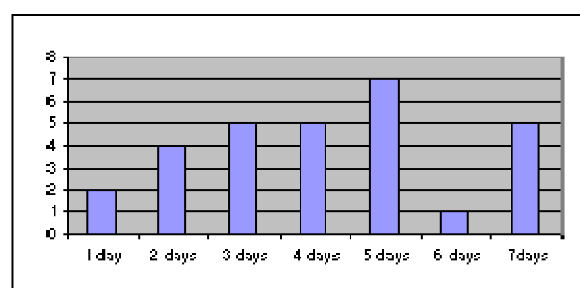
Motivation to take part:

82% said they had thought walks would be an enjoyable physical activity to take part in.
Health reasons (67%) and Social reasons (64%) were other motivations given.

Impact on activity levels:

Q: How many days in an average week do you engage in more than 30 mins of physical activity?:

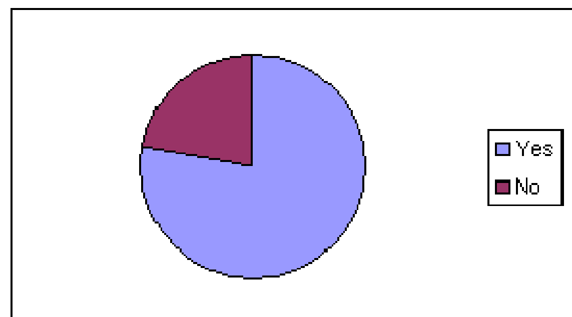
Responses:	
I day	2
2 days	4
3 days	5
4 days	5
5 days	7
6 days	1
7days	5



Q: Has being part of a walking group made you more active?

Responses:

Yes	24	78%
No	7	22%



Q: Has it encouraged you to take part in other physical activity?

Responses:

Yes	15	48%
No	16	52%

New activities tend to be aerobic exercises (e.g. Swimming, Gym, Exercise Classes)

Q: Has walking improved any aspect of your health or health condition?

Responses:

Yes	20	64%
No	10	32%
Don't know	1	4%

Q: Do you think being part of this activity will have any long-term effect on your health or other areas of your life?

Responses:

Yes	27	87%
No	4	13%
May do/not sure		

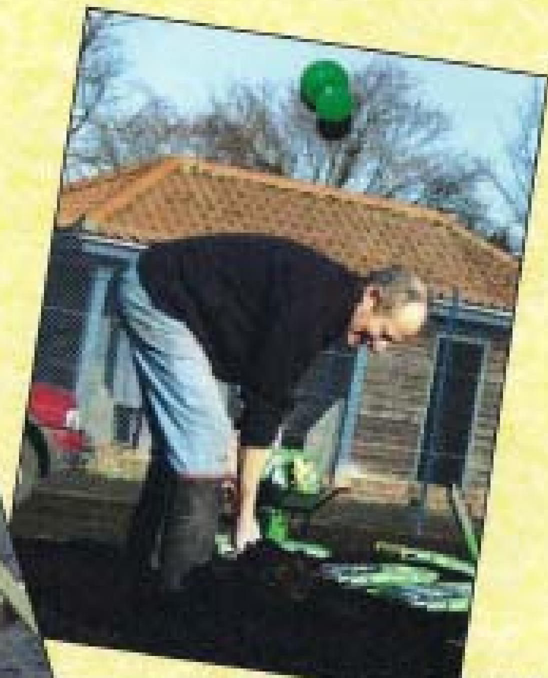
87% said they thought it would have a long-term effect, including impacts on
- keeping active longer, living longer and general well-being.

Appendix 1: Part 4 Boston Gardening Volunteers – Healthy Walking Group

22 Boston Bulletin, February, 2011 www.boston.gov.uk

Walkers go gardening

Volunteer workers from the healthy walking groups help out in Central Park's new community growing area:
Colin Poole digs in, Christopher Dorrington checks the new fence is level. Margaret Duncan and Sue Johnson dig their new keep fit regime and walks leader Frances Taylor nails it.
See page 23



Appendix 2 – Exercise Referral

Exercise Referral Audit Analysis

The Exercise Referral Audit conducted between July and January 2011, enabled snapshots of activity around the Exercise Referral scheme to be analysed. Whilst anomalies exist within the data both in omissions and consistency between districts, enough data has been amassed to consider what patterns are emerging from study of selected samples. This appendix therefore details analysis that has been undertaken on samples from the first audit from July 2010 to the beginning of October 2010 and the second audit from July 2010 to the beginning of January 2011. Part 1 contains analysis from the first audit and Parts 2 to 5 analysis from the second.

Part 1

1.1 Reasons for Referral:

One key element we were keen to identify through the audit was how the scheme was being used by health professionals, in particular the range and variety of conditions that prompted referrals onto the scheme. The audit asked respondents to cite the reasons for referrals. Many individuals presented multiple conditions.

At a county level the reasons for referral are given in Figure 1.1. This highlights that Obesity is the biggest health factor recorded in the referrals recorded in this audit – accounting for approximately half of the referral reasons cited.

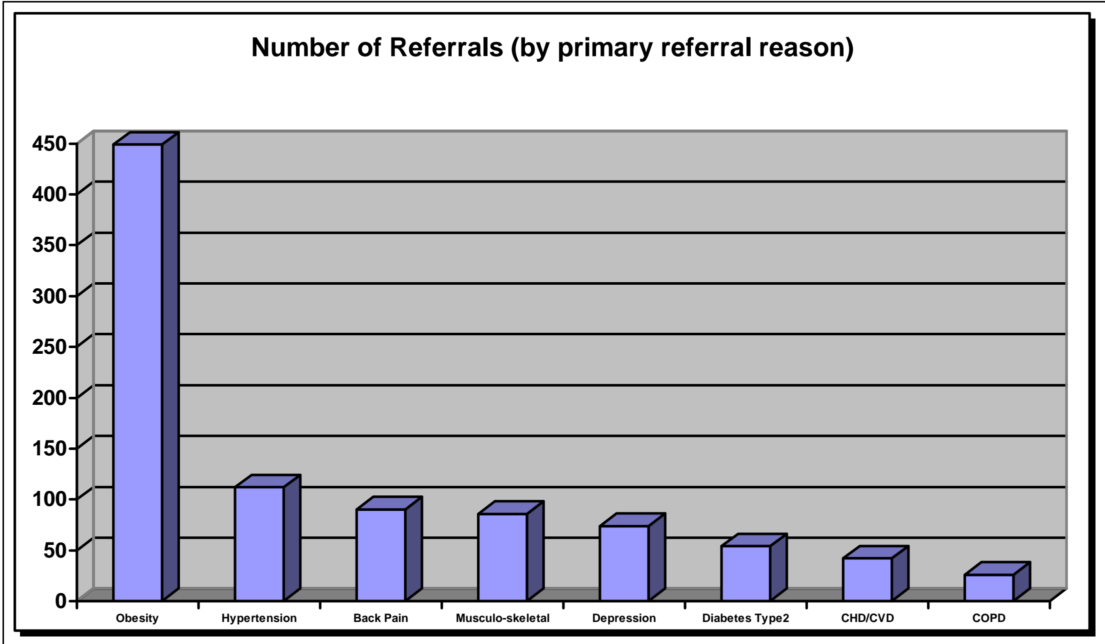


Figure 1:1 Referrals across Lincolnshire – primary reasons cited (Exercise Referral Audit, July – October 2010)

Table 1.1 details more fully the reasons given for referrals into the Exercise Referral programme from each district across Lincolnshire, ranked by the numbers of individuals involved:

Referrals (by district)	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**Total No. cited**
EL Skegness	Obesity (48)	Hypertension (14)	Chd/cvd (8)	COPD (5)	Back pain (5)	Musco-skeletal (4)	Depression (3)	Diabetes Type 2 (0)	87
E Lindsey Mablethorpe	Obesity (84)	Back pain (47)	Hypertension (24)	Musco-skeletal (24)	Depression (22)	Diabetes Type 2 (13)	Chd/cvd (8)	COPD (3)	225
E Lindsey Horncastle	Obesity (21)	Hypertension (9)	Musco-skeletal (9)	Diabetes Type 2 (5)	Chd/cvd (4)	Back pain (3)	Depression (2)	COPD (0)	53
City of Lincoln	Obesity (38)	COPD (15)	Back pain (12)	Musco-skeletal (11)	Hypertensio n (8)	Depression (7)	Diabetes Type 2 (4)	Chd/cvd (0)	95
YMCA	Obesity (46)	Musco-skeletal (14)	Hypertension (12)	Depression (5)	Back pain (3)	Diabetes Type 2 (3)	Chd/cvd (0)	COPD (0)	83
W Lindsey	Obesity (94)	Hypertension (17)	Musco-skeletal (16)	Back pain (14)	Depression (13)	Diabetes Type 2 (9)	Chd/cvd (1)	COPD (0)	164
N Kesteven	Chd/cvd (17)	Obesity (13)	Diabetes Type 2 (6)	Depression (4)	Hypertensio n (2)	COPD (1)	Musco-skeletal (0)	Back pain (0)	43
S Holland	Obesity (33)	Depression (6)	Hypertension (4)	Back pain (3)	Diabetes Type 2 (3)	Musco-skeletal (2)	Chd/cvd (1)	COPD (0)	52
Boston	Obesity (55)	Hypertension (22)	Depression (12)	Diabetes Type 2 (5)	Musco-skeletal (5)	Back pain (3)	COPD (2)	Chd/cvd (0)	104
S Kesteven	Obesity (17)	Diabetes Type 2 (6)	Chd/cvd (3)	Musco-skeletal (2)	Back pain (0)	Depression (0)	Hypertensio n (0)	COPD (0)	28

Table 1.1 Referrals – Reasons for referral (by district): Source Audit data

1.2 Local Variations:

North Kesteven was the only district where obesity was not the greatest cause for referral, in this district it was still the second biggest group with referrals, with CHD/CVD slightly exceeding obesity as the primary reason for referral. This reflects that the co-ordinator has specific expertise in cardiovascular rehabilitation and exercise.

Similar specialist factors can be seen in reference to COPD, with Lincoln in particular having expertise in this area and providing classes for this group, as well as specific classes in back pain. Similarly Mablethorpe has specialist expertise in back pain, seen again in the high rankings for this.

Obesity referrals account for between 30% and 63% of all referrals within districts, with Table 1.2 detailing the ratio of obesity referrals to other primary reasons for referral:

District	Count of referrals citing obesity as a reason for referral	Total No referrals cited in leading rankings	Ratio of obesity : other (reasons for referral)	% obesity referrals (as total of referrals)
EL Skegness	48	87	48 : 87	55%
EL Mablethorpe	84	225	84 : 225	37%
EL Horncastle	21	53	21 : 53	40%
COFL	38	95	38 : 95	40%
YMCA	46	83	46 : 83	55%
WL	94	164	94 : 164	57%
NK	13	43	13 : 43	30%
SH	33	52	33: 52	63%
Boston	55	104	55 : 104	53%
SK	17	28	17 : 28	61%
TOTAL	449	934	449 : 934	48%

Table.1.2: Ratio of referrals related to obesity *(Source: Audit data)*

In reviewing the audit sample for July – October 2010 an analysis of district data concerning number of referrals, throughput and average participant visits, against average activity costs per participant (calculated by NHS Lincolnshire from audit data) and those who were deemed to have completed the exercise referral scheme demonstrated that there are very differing performance variables by which a scheme can be evaluated. Judging the added value and performance of an individual scheme by one criteria needs to be balanced by an overall assessment of factors affecting the programmes. Table 1.3 details the various variables within the schemes. It should be noted that this is only a sample and as indicated there are inconsistencies in the data, nevertheless it does indicate how many different patterns of variables and outcomes there can be within individual district schemes, which will themselves flux according to the timeframe of the audit sample.

Table: 1:3 – Review of Performance and Profile Indicators
July – October 2010 Audit Sample

	Referrals	Throughput	%completion 12 weeks	Average visits	% women	% of obesity cases	Costings Per Client *(Source:NHS Lincolnshire: Activity Unit Cost)*
1	West Lindsey 167	YMCA 1481	YMCA 83%	YMCA 17	EL Mablethorpe 71%	EL Mablethorpe 74%	East Lindsey £40.3
2	EL Mablethorpe 113	EL Mablethorpe 1127	Boston 70%	S Holland 14	South Holland 67%	S Holland 73%	West Lindsey £40.8
3	COFL 110	West Lindsey 1080	EL Skegness 67%	Boston 12	COFL 64%	EL Horncastle 70%	South Holland £104.7
4	YMCA 87	Boston 956	SK 63%	EL Mablethorpe 9.97	EL Horncastle 63%	Boston 69.7%	YMCA £110.4
5	EL Skegness 79	COFL 949	EL Mablethorpe 63%	SK 9.85	SK 61.5%	SK 65. %	Boston £128.8
6	Boston 79	EL Skegness 649	South Holland 60%	COFL 8.6	Boston 61.5%	EL Skegness 60.7%	COL £145.4
7	NK 50	SH 630	West Lindsey 45%	EL Skegness 8.2	EL Skegness 60%	WL 56.3%	South Kesteven £188.8
8	SH 45	NK 336	Lincoln 37%	EL Horncastle 6.9	WL 54%	YMCA 52.3%	North Kesteven £210.2
9	South Holland 45	SK 257	NK 22%	NK 6.7	YMCA 46%	COFL 34.5%	
10	EL Horncastle 30	EL Horncastle 206	EL Horncastle 13%	WL 6.5	NK 45%	NK 26%	

Source: Audit Sample/LSP – July – October 2010

Part 2 - Levels of Participation, Throughput and Completion

2.1 Audit Sample - July 2010 – January 2011

Analysis of the second audit from July to early January allowed further analysis of the data, in particular the breakdown of activity by the number of weeks attended subsequent to referral. In particular, the data was reviewed for those registered in the sample that could have completed the exercise referral scheme in this period by dates given, and those whose final status was recorded in the data as a 'completion' or 'drop-off'. Using the audit sample data it has been possible to show how many weeks different groups of people attended Exercise Referral and gives some insight into the factors impacting on completion rates.

The audit equally enabled us to understand the profile of the cohort under consideration and to start to explore further these questions about factors influencing attendance. Table 2.1 below, which depicts the profile and characteristics of the total audit sample, indicates the main characteristics of the districts participant profile.

	No. Participants in audit sample	Av. Age	% Male	% Female	Av. wk1 BMI	Total sessions attended (Audit Sample group)
EL Skegness	103	56	38%	62%	34.8	902
EL Mablethorpe	164	52	37%	63%	33.4	1852
EL Horncastle	47	56	36%	64%	32.6	425
City of Lincoln	111	50	36%	64%	34.5	986
YMCA	129	42	55%	45%	32.1	2074
W Lindsey	289	44	49%	51%	30.2	2522
North Kesteven	67	52	51%	49%	31.7	563
South Holland	70	45	33%	67%	34.8	903
Boston	91	52	41%	59%	34.0	1141
South Kesteven	36	50	39%	61%	35.0	337
TOTAL	**1107**	**50**	**41.5%**	**58.5%**	**33**	**11702**

Table 2.1: Profile of participants (source: Audit Sample*)*

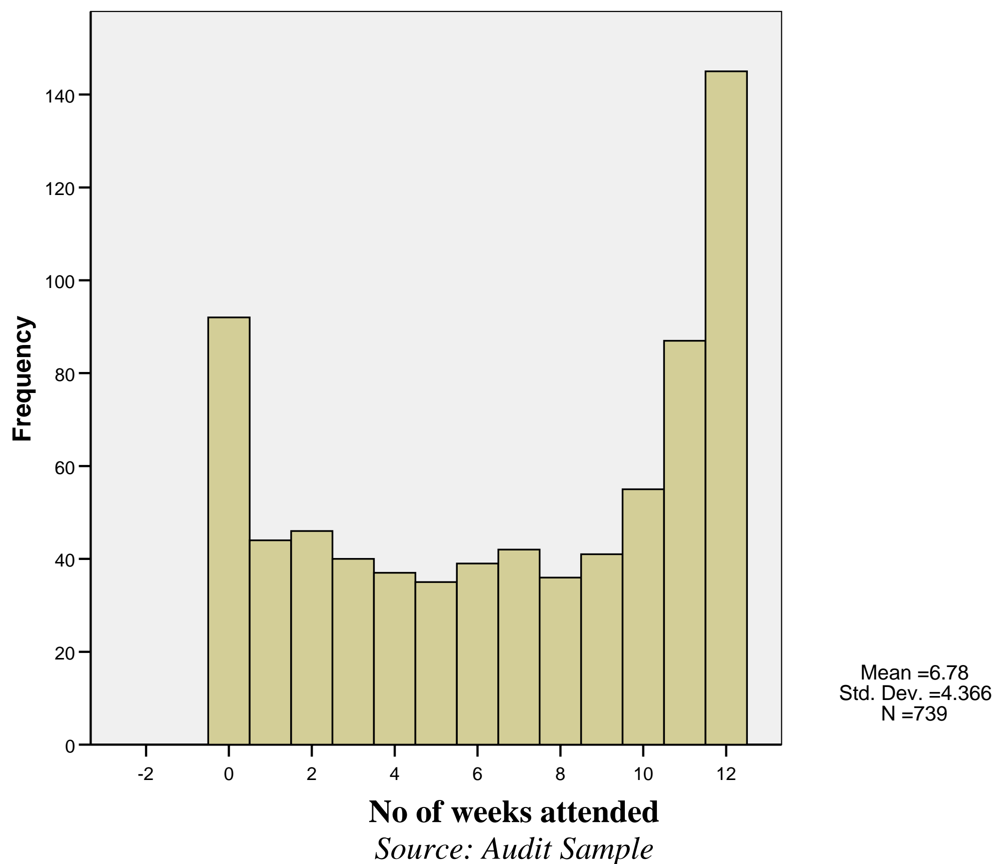
This shows that nearly 60% of those referred were female, with a generally consistent pattern across the districts although West Lindsey and North Kesteven are more evenly balanced with regard to gender. Average ages at the districts ranged from 42-45 yrs (YMCA, West Lindsey and South Holland) to 56 years (Horncastle and Skegness).

Average BMI recordings on week 1 also varied between districts with West Lindsey, North Kesteven and YMCA having the lowest values (c.30-32) and South Kesteven, Skegness, South Holland and City of Lincoln having the highest average BMI values (c 34-35).

2.2 Attendance Profiles for Audit Sample Data

Figure 2.1 uses the audit sample to understand the participation patterns of people within the scheme from July 2010 to January 2011 who could have completed the 12-week period. In particular to understand the pattern of numbers of weeks attended and whether the programme was being consistently attended over the 12 weeks. Hence it is counting those who never attended (0 weeks) to those who attended each of the 12 week period.

Fig 2.1 Profile of Attendance patterns



No of weeks attended

Source: Audit Sample

Figure 2.1 highlights several key characteristics apparent in this data:

- Approximately 13% of those referred into the scheme never attended *any* sessions.
- Approximately 5% only went for one week
- Each subsequent week shows a fairly constant drop in weeks participated (5%) until week 9
- Approx 45% of participants in the sample attend over 9 or more weeks.
- Approx. 32% participants in the sample attended 11 or 12 weeks
- Approx 20% participants in the sample attended all 12 weeks

Part 3: Attendance Patterns by District

It was also possible from the sample audit to see if these attendance patterns were the same in every district or whether there are any distinct local variations. This is shown in Figure 3.1 below and shows how attendance varied from 0 weeks (individuals who did not show up) to 12 weeks (individuals who completed the 12 week programme).

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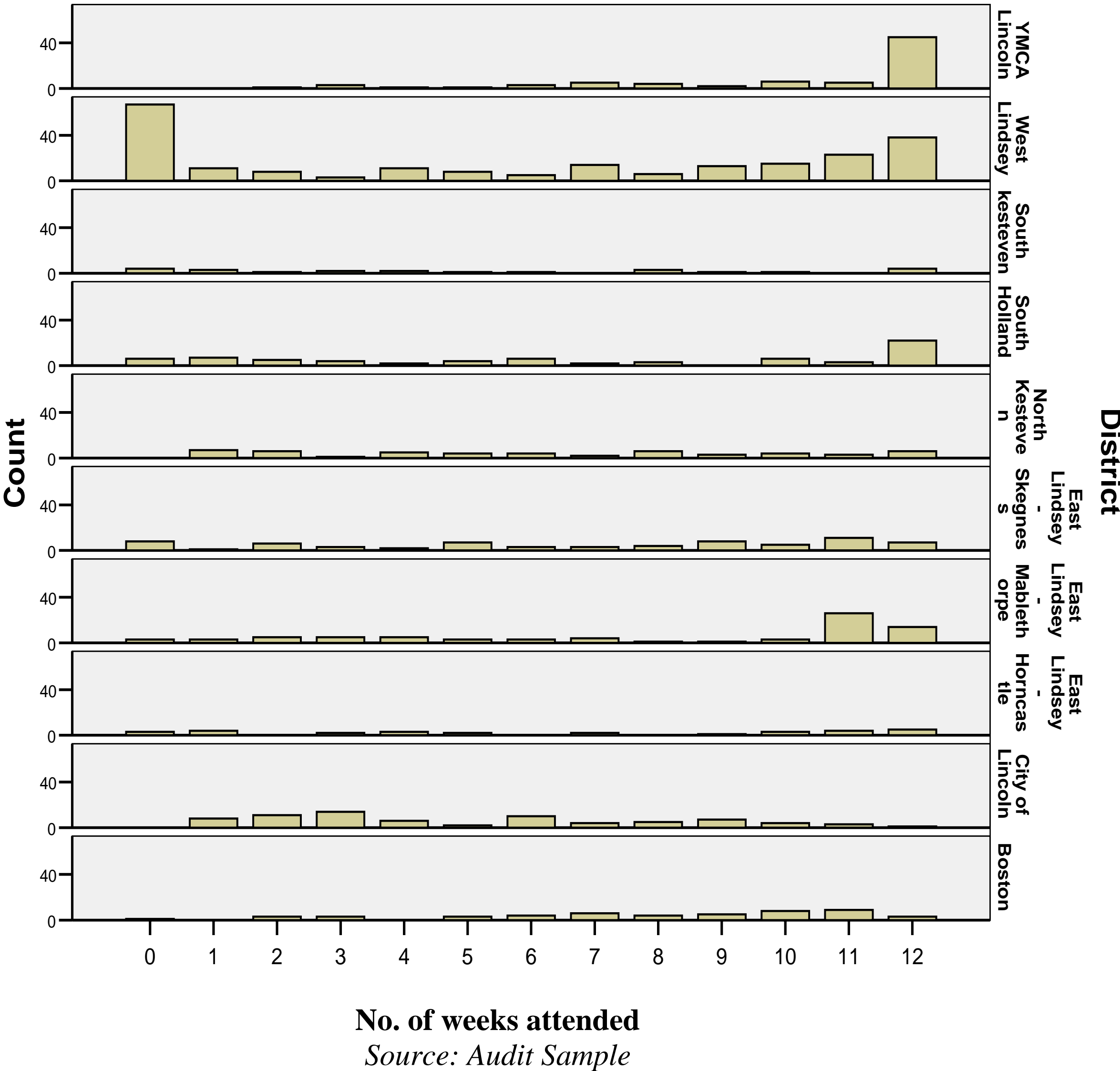
Figure 3.1 Number of Weeks individuals attended by District



No. of weeks attended

Source: Audit Sample

From this audit sample the YMCA, West Lindsey, South Holland and Mablethorpe had a considerable proportion undertaking activity over the whole 12-week audit period. It is also noticeable that West Lindsey has in this sample many people referred onto the scheme who are non-attendees. Other districts may have similar findings given that not all have recorded this data and there are differences in data-recording practices within the audit.

Table 3.2 and Figure 3.2 further demonstrates this by displaying the total number of weeks individuals attended at each district, grouped in the histogram to show those that attended for a certain number of weeks.

Weeks Attended by Participants	Sample size	0 weeks	1 week	2 weeks	3 weeks	4 weeks	5 weeks	6 weeks	7 weeks	8 weeks	9 weeks	10 weeks	11 weeks	12 weeks	% 10-12 weeks
EL Skegness	67	8	1	6	3	2	6	3	3	4	8	5	11	7	34%
EL Mablethorpe	76	3	3	5	5	5	3	3	4	1	1	3	26	14	56%
EL Horncastle	31	4	4	0	2	3	2	0	2	0	1	3	5	5	42%
City of Lincoln	75	0	8	11	14	6	2	10	4	5	7	4	3	1	11%
YMCA	76	0	0	1	3	1	1	3	5	4	2	6	5	45	74%
W Lindsey	222	67	11	8	3	11	8	5	14	6	13	15	23	38	34%
North Kesteven	51	0	7	6	1	5	4	4	2	6	3	4	3	6	21%
South Holland	40	6	5	5	2	4	0	3	3	1	2	5	3	1	22%
Boston	49	1	0	3	3	0	3	4	6	4	5	8	9	3	41%
South Kesteven	23	4	3	1	2	2	1	1	0	3	1	1	0	4	21%

Table 3.2: Weekly Attendance Patterns by District (source: Audit Sample)

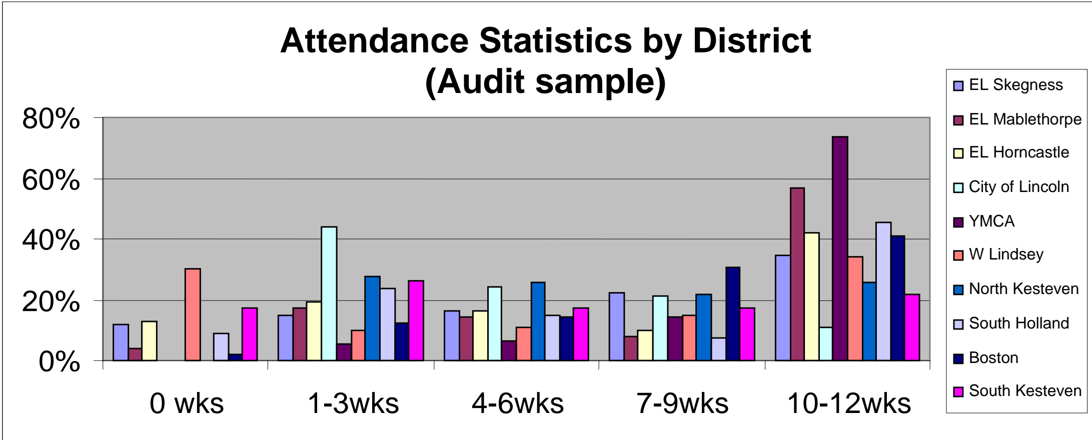


Figure 3.2: Histogram of number of weeks attended by district
(Source: Sample Audit)

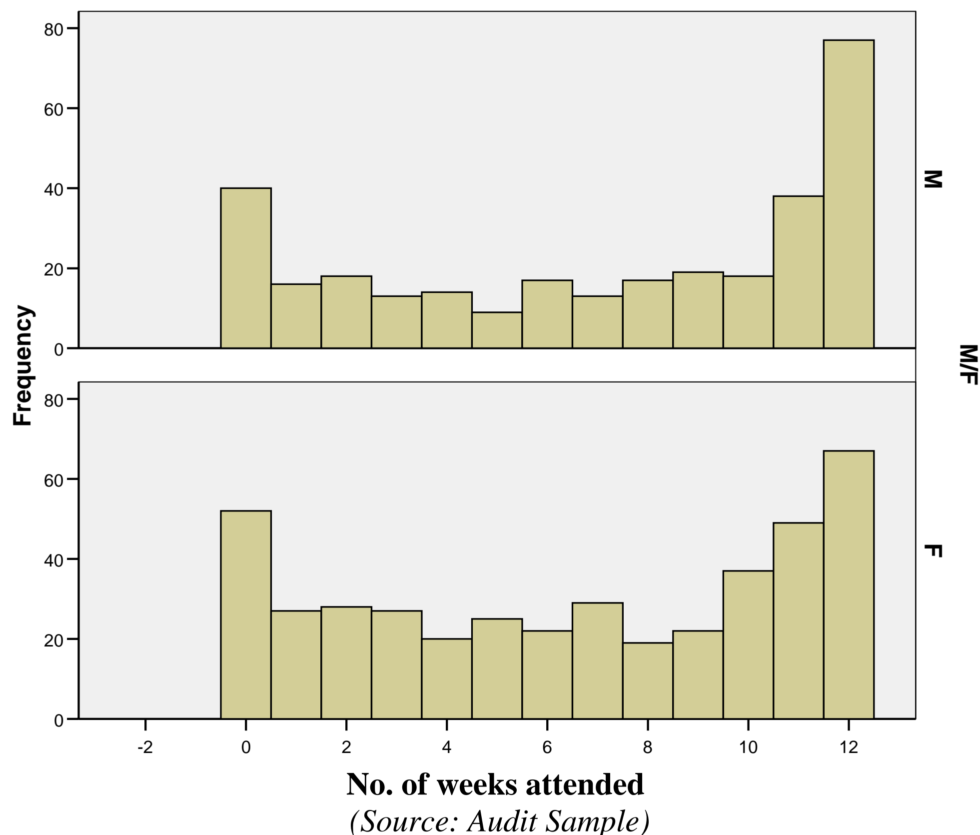
Part 4: Factors effecting Attendance and Completion Rates

4 factors were explored in relation to attendance and completion rates within the sample audit these included gender, age, BMI and reason for referral:

4.1 Gender

Figure 4.1 shows the attendance of males and females across Lincolnshire (who were included in our sample). For each gender, the number of people attending for any given number of weeks is given as a frequency count. Attendance varied from individuals who never attended (0 weeks) to those who came for the full 12 weeks.

Fig 4.1: Weekly attendance rates by Gender (source: Audit sample)



No. of weeks attended

(Source: Audit Sample)

Whilst the patterns are quite similar between the genders this shows that males were slightly more likely to complete the programme than females (56% compared to 48.1%), a factor also found in national research.

Gender * Completer Crosstabulation

			Completer		Total
			Yes	No	
Gender	Male	Count	173	136	309
		% within Gender	56.0%	44.0%	100.0%
	Female	Count	204	220	424
		% within Gender	48.1%	51.9%	100.0%
Total		Count	377	356	733
		% within Gender	51.4%	48.6%	100.0%

Table 4.1: Completion rates by Gender ***(source: Audit sample)***

4.2 Age

National findings also suggest that older age-groups are more likely to complete exercise referral programmes once commenced. The audit sample allowed us to test for this in Lincolnshire.

Table 4.3 shows that those marked as 'completers' in the sample did indeed have a slightly older average age (51 years compared to 47 years for non-completers).

Completer	Mean Age	Number
Yes	50.63	377
No	47.06	359
Total	48.89	736

Table 4.2: Average age for Completers and Non-Completers (audit sample*)*

The relationship between ages and completion of the Exercise Referral Programme was then further explored by banding ages, and analysing completion data within each age-band.

Broad Age Group * Completer Crosstabulation

			Completer		Total
			Yes	No	
Broad Age Group	0-34	Count	68	84	152
		% within Broad Age Group	44.7%	55.3%	100.0%
	35-44	Count	69	74	143
		% within Broad Age Group	48.3%	51.7%	100.0%
	45-54	Count	68	79	147
		% within Broad Age Group	46.3%	53.7%	100.0%
	55-64	Count	75	59	134
		% within Broad Age Group	56.0%	44.0%	100.0%
	65+	Count	84	49	133
		% within Broad Age Group	63.2%	36.8%	100.0%
Total		Count	364	345	709
		% within Broad Age Group	51.3%	48.7%	100.0%

Table 4.3: Completion rates by Age Band *(Source: Sample Audit)*

Table 4.3 shows a steadily increasing completion rate with increasing age-bands and a corresponding fall in the rate of non-completion with age. At the extremes these differences are quite marked, for example only 44.7% of the 0-34 age group completed the programme (68 out of 152 individuals), whereas 63.2% of the over 65 age group completed it (i.e. 84 individuals out of 133).

4.3. BMI of Participants

No firm conclusions have yet been drawn about the effect of participants' BMI on their completion rates, table 4.4 simply notes that the average BMI for completers was slightly higher than the average for non-completers.

Completer	Mean	N
Yes	33.03	366
No	32.30	300
Total	32.70	666

Table 4.4: Average BMI of Completers and non-Completers *(source: Sample Audit)*

4.4 Reasons for referral:

The final factor explored was the initial referral reason for participants on Exercise Referral Schemes and whether these influenced completion rates.

Table 4.5 overleaf shows that the highest proportions of completions came within the groups referred for Heart/CHD (56.6%), obesity (53%) and Mobility (53%), with the lowest proportions of completions being found within the groupings of those referred for reasons related to Mental wellbeing (39.1% completion).

Reason for Referral - Cluster of Conditions * Completer Crosstabulation

			Completer		Total
			Yes	No	
Reason for Referral - Cluster of Conditions	Heart/CHD	Count	43	33	76
		% within Reason for Referral - Cluster of Conditions	56.6%	43.4%	100.0%
	Mental wellbeing	Count	36	56	92
		% within Reason for Referral - Cluster of Conditions	39.1%	60.9%	100.0%
	Mobility - muscles/skeletal/degenerative	Count	62	55	117
		% within Reason for Referral - Cluster of Conditions	53.0%	47.0%	100.0%
	Breathing related	Count	16	16	32
		% within Reason for Referral - Cluster of Conditions	50.0%	50.0%	100.0%
	Obesity	Count	197	175	372
		% within Reason for Referral - Cluster of Conditions	53.0%	47.0%	100.0%
	Cancer related	Count	1	1	2
		% within Reason for Referral - Cluster of Conditions	50.0%	50.0%	100.0%
	Diabetes I and II	Count	14	12	26
		% within Reason for Referral - Cluster of Conditions	53.8%	46.2%	100.0%
	Stop smoking	Count	4	5	9
		% within Reason for Referral - Cluster of Conditions	44.4%	55.6%	100.0%
	Pre-post natal	Count	0	1	1
		% within Reason for Referral - Cluster of Conditions	.0%	100.0%	100.0%
Total		Count	373	354	727
		% within Reason for Referral - Cluster of Conditions	51.3%	48.7%	100.0%

Table 4.5: Referral Reasons of Completers and non-Completers *(source: Sample Audit)*

These patterns are equally found when using cross tabulations and separating the individual reasons for referral as seen in Table 4.6 overleaf.

Table 4.6 First Reason for Referral and Completion Figures

		Completer		Total
		Yes	No	
Angina	Count	1	0	1
	%	100.0%	.0%	100.0%
Anxiety	Count	11	24	35
	%	31.4%	68.6%	100.0%
Arthritis	Count	17	7	24
	%	70.8%	29.2%	100.0%
Asthma	Count	11	4	15
	%	73.3%	26.7%	100.0%
Back Pain	Count	17	19	36
	%	47.2%	52.8%	100.0%
Cancer related	Count	1	1	2
	%	50.0%	50.0%	100.0%
Chronic Fatigue/ME	Count	2	0	2
	%	100.0%	.0%	100.0%
Circulation (e.g. DVT)	Count	1	0	1
	%	100.0%	.0%	100.0%
COPD	Count	2	3	5
	%	40.0%	60.0%	100.0%
Degenerative disease	Count	1	0	1
	%	100.0%	.0%	100.0%
Depression	Count	17	19	36
	%	47.2%	52.8%	100.0%
Diabetes Type 1	Count	0	2	2
	%	.0%	100.0%	100.0%
Diabetes Type 2	Count	13	11	24
	%	54.2%	45.8%	100.0%
High Cholesterol	Count	1	2	3
	%	33.3%	66.7%	100.0%

		Completer		Total
		Yes	No	
Hypertension	Count	25	15	40
	%	62.5%	37.5%	100.0%
Injury/Accident	Count	1	1	2
	%	50.0%	50.0%	100.0%
Musculo-skeletal problems	Count	20	19	39
	%	51.3%	48.7%	100.0%
Obesity	Count	208	183	391
	%	53.2%	46.8%	100.0%
Other CardioVascularDisease	Count	12	13	25
	%	48.0%	52.0%	100.0%
Other mental/psychological condition	Count	8	9	17
	%	47.1%	52.9%	100.0%
Other Rehabilitation	Count	4	7	11
	%	36.4%	63.6%	100.0%
Parkinson's	Count	0	1	1
	%	.0%	100.0%	100.0%
Phase IV Cardiac Rehab	Count	4	2	6
	%	66.7%	33.3%	100.0%
Pre/Post natal	Count	0	1	1
	%	.0%	100.0%	100.0%
Stop Smoking	Count	4	4	8
	%	50.0%	50.0%	100.0%
Stress	Count	3	4	7
	%	42.9%	57.1%	100.0%
Stroke	Count	0	1	1
	%	.0%	100.0%	100.0%
Weight Gain	Count	1	1	2
	%	50.0%	50.0%	100.0%
Total	Count	385	353	738
	%	52.2%	47.8%	100.0%

Part 5: Impact of Exercise Referral – findings from Monitoring Data and Audit Sample

5.1 Impact on identifying need:

The Exercise Referral Programme has identified and monitored the exercise needs of 3,086 people in 2010/11 – 6,017 in the project overall. Each of these 6,017 was offered access to facilities and support – mostly free at source or at very low cost to the individuals involved. Throughput in the case of East Lindsey, West Lindsey, South Holland and YMCA has also been significant as seen in Figure 5.1.

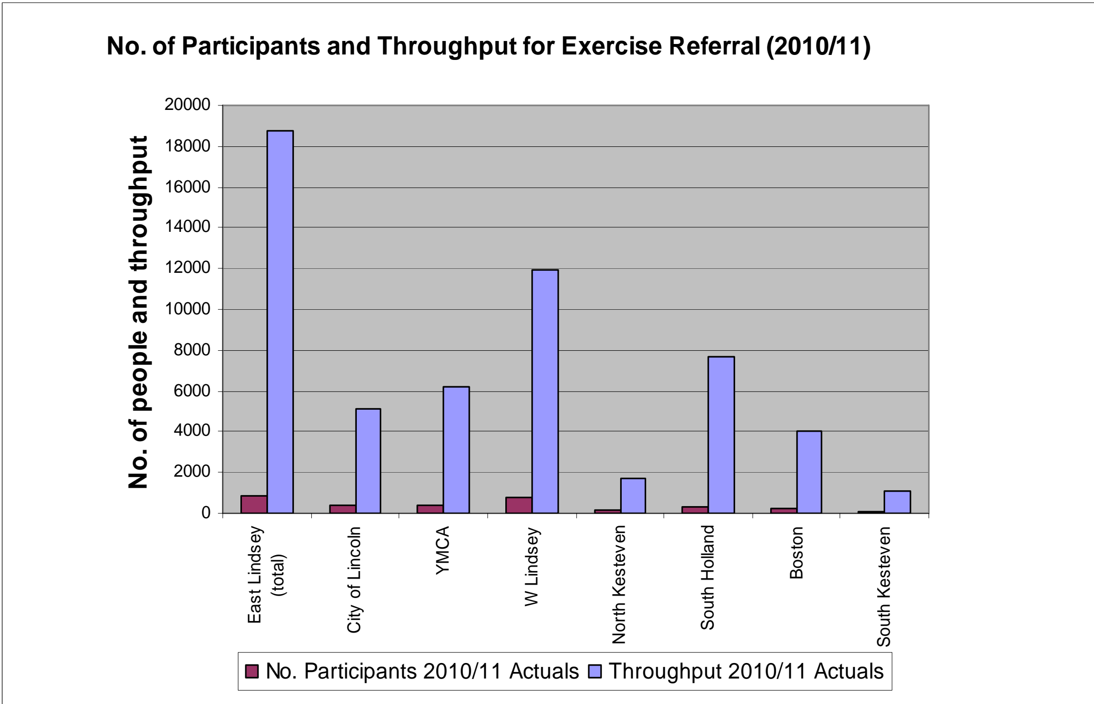


Figure 5.1 Participant and Throughput Figures for 2011 (*Source LSP/ Monitoring Data)*

5.2 Impact on activity levels:

The audit has identified that a significant number of people, with challenging and sometimes multiple health needs related to exercise, have taken part in regular physical activities. Over 30% of those in the audit sample completed 11-12 weeks of exercise as part of the programme with many others completing a number of sessions within the programme. Many people attended more than once a week – exercising regularly, over a sustained period of time.

5.3 Impact on BMI (weight loss and gain)

Not all participants on Exercise Referral Programmes wish to loose weight, however as seen from the audit sample the biggest reason for referral is related to obesity and related health issues, therefore the impact of the scheme on weight loss is extremely important. Figure 5.2 shows a sub-sample of data taken from the recent audit, where both an initial BMI value and a post-completion BMI value have been recorded. The difference in these 2 figures is depicted graphically.

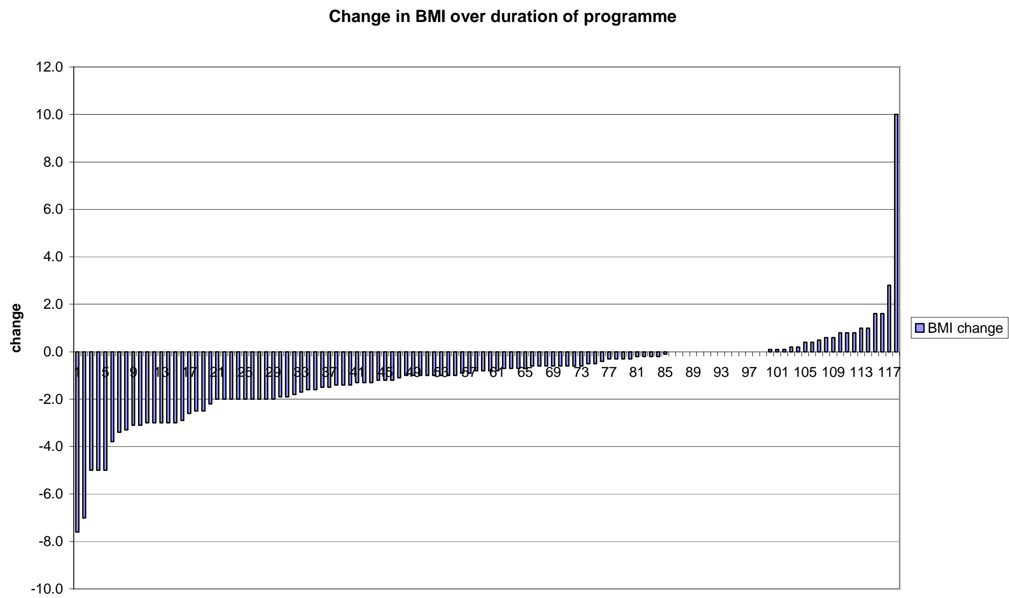


Figure 5.2: Changes in BMI for 118 individuals with pre & post values recorded (sample audit)

Where BMI changes were recorded in the audit sample, very few increased their BMI measurement over the period concerned (15%). 11% of individuals with a pre and post measurement recorded no change in their BMI. 71% (of this sub-sample) recorded a drop in their BMI values.

Part 6: District Monitoring Data 2009-11

	Exercise Referral			
	Participants	Throughput	No referral Sites	No Referral partners
Boston Borough Council				
Targets 09.10	225	2840	1	12
Actual 09.10 Total	244	3866	1	12
Targets 10.11	300	6000	1	12
Actual 10.11 Total	238	4053	3	61
Overall Target	525	8840	2	24
Overall Actual	482	7919	4	73
City Of Lincoln				
Targets 09.10	180	4320	3	18
Actual 09.10 Total	598	2620	4	12
Targets 10.11	500	10000	3	18
Actual 10.11 Total	371	5117	6	36
Overall Target	680	14320	6	36
Overall Actual	969	7737	10	48
East Lindsey District Council				
Targets 09.10	1000	22000	4	8
Actual 09.10 Total	786	30265	5	8
Targets 10.11	800	17600	4	9
Actual 10.11 Total	869	18766	8	31
Overall Target	1800	39600	8	17
Overall Actual	1655	49031	13	39
North Kesteven				
Targets 09.10	94	606	1	4
Actual 09.10 Total	124	1345	1	7
Targets 10.11	105	2310	1	3
Actual 10.11 Total	132	1728	2	14
Overall Target	199	2916	2	7
Overall Actual	256	3073	3	21
South Holland				
Targets 09.10	160	1600	3	10
Actual 09.10 Total	228	7164	3	8
Targets 10.11	250	5500	4	0
Actual 10.11 Total	279	7642	9	21
Overall Target	410	7100	7	10
Overall Actual	507	14806	12	29
South Kesteven				
Targets 09.10	125	1250	1	2
Actual 09.10 Total	136	1416	4	2
Targets 10.11	200	4400	1	2
Actual 10.11 Total	98	1084	8	4
Overall Target	325	5650	2	4
Overall Actual	234	2500	12	6

West Lindsey	Participants	Throughput	No Referral Sites	No Referral Partners
Targets 09.10	375	4500	4	12
Actual 09.10 Total	815	9780	4	30
Targets 10.11	700	12000	6	12
Actual 10.11 Total	747	11953	9	60
Overall Target	1075	16500	10	24
Overall Actual	1562	21733	13	90

YMCA	Participants	Throughput	No referral Sites	No Referral partners
Targets 10.11	155	3410	1	
Actual 10.11 Total	352	6237	1	0
Quarter 1	155	3410	0	
Quarter 2	94	1399	0	
Quarter 3	57	996	0	
Quarter 4	46	432	0	

County	Participants	Throughput	No referral Sites	No Referral partners
Targets 09.10	2159	37116	17	66
Actual 09.10 Total	2931	56456	22	79
Targets 10.11	3010	57810	20	56
Actual 10.11 Total	3086	50343	45	227
Overall Targets	5169	94926	37	122
Overall Actual	6017	106799	67	306
Difference	848	11873	30	184

Source: LSP and District Monitoring Data 2009-11

Appendix 3: Fit Kids

3.1 Fit Kids Monitoring Data

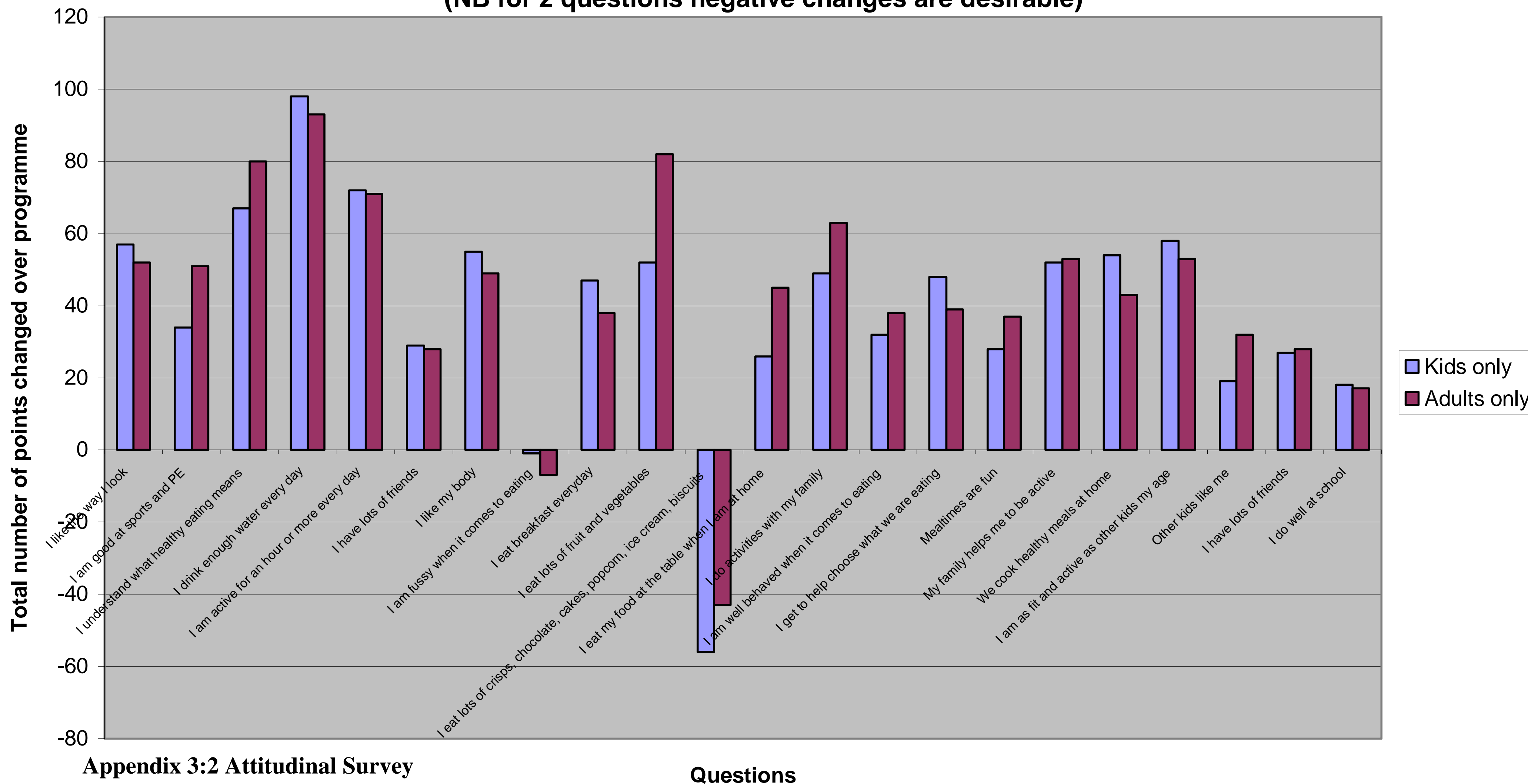
	Fit Kids			
	Participants	Throughput	No referral Sites	No Referral partners
Boston Borough Council				
Targets 09.10	255	2040	15	1
Actual 09.10 Total	67	1181	3	5
Targets 10.11	65	1300	15	1
Actual 10.11 Total	82	1134	3	8
Overall Target	320	3340	30	2
Overall Actual	149	2315	6	13
Boston Outreach				
Targets 09.10	100	1400	1	15
Actual 09.10 Total	255	3356	1	6
Targets 10.11	100	1400	1	15
Actual 10.11 Total	164	1548	4	72
Overall Target	200	2800	2	30
Overall Actual	419	4904	5	78
East Lindsey District Council				
Targets 09.10	110	880	3	4
Actual 09.10 Total	57	603	3	4
Targets 10.11	45	900	3	4
Actual 10.11 Total	47	415	6	6
Overall Target	155	1780	6	8
Overall Actual	104	1018	9	10
North Kesteven				
Targets 09.10	0	0	0	0
Actual 09.10 Total	31	144	4	10
Targets 10.11	45	900	1	1
Actual 10.11 Total	10	80	1	34
Overall Target	45	900	1	1
Overall Actual	41	224	5	44
South Holland				
Targets 09.10	50	400	1	1
Actual 09.10 Total	58	871	1	1
Targets 10.11	75	1500	1	1
Actual 10.11 Total	59	760	5	3
Overall Target	125	1900	2	
Overall Actual	117	1631	6	4
South Kesteven				
Targets 09.10	75	600	1	1
Actual 09.10 Total	0	0	4	2
Targets 10.11	45	900	1	1
Actual 10.11 Total	34	535	0	0
Overall Target	120	1500	2	2
Overall Actual	34	535	4	2

West Lindsey				
Targets 09.10	80	800	4	8
Actual 09.10 Total	80	690	4	5
Targets 10.11	40	800	4	8
Actual 10.11 Total	131	1862	9	12
Overall Target	120	1600	8	16
Overall Actual	211	2552	13	17
County	Participants	Throughput	No referral Sites	No Referral partners
Targets 09.10	680	5600	25	16
Actual 09.10 Total	501	3880	21	32
Targets 10.11	387	7740	26	17
Actual 10.11 Total	432	5964	30	63
Overall Targets	1067	13340	51	33
Overall Actual	933	9844	51	95
Difference	-134	-3496	0	-62

Source: Lincolnshire Sports Partnership and District Monitoring Data 2009-11

Total changes by question asked

284 children and their parents asked for their scores at wk 1 & wk 12 - this graph shows the areas where these scores changed most over the programme.
(NB for 2 questions negative changes are desirable)



Appendix 3:2 Attitudinal Survey

Appendix 4: Over 45's Physical Activators Survey

Profile of Participants:

Number in survey (n):	31
Age Range:	45 - 82 yrs
Av. (mean) age:	63 years
Median age:	64 years
Interquartile Range (ages):	57 - 67 years

Generally: early retired age-range (50-70)
Twice as many females to male participants

	M	F
no.	10	19
%	33%	66%

Fitness Levels of participants:

Q: 'How would you describe yourself?'

Responses:

Respondents generally quite fit
Programme accessible to those not very fit

		% of responses
Very Fit	3	10%
Fit	18	60%
Not Fit	6	20%

Participation:

Q: 'How often do you take part?'

Responses:

Evidence of regular participation
All sampled took part at least once a week
(70% more than once a week)

		% of responses
<1 per week	--	0%
once a week	9	30%
>1 per week	21	70%

Motivation to take part:

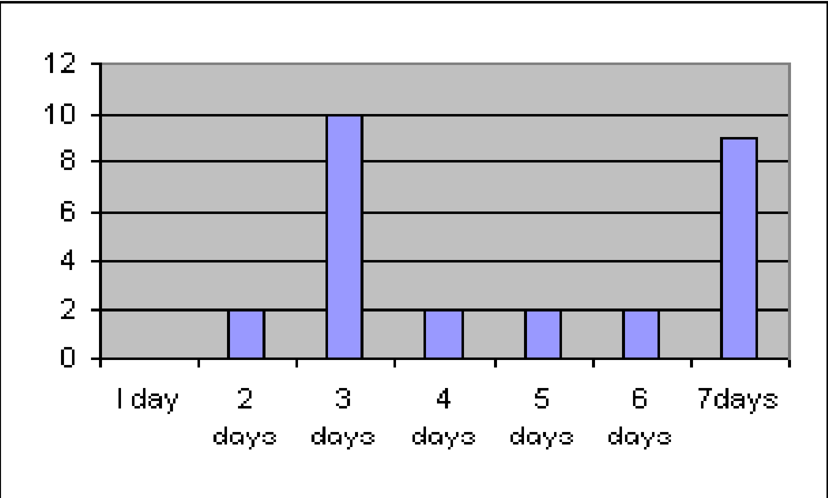
83% of people surveyed said they took part in Over-45s activities for Social Reasons
63% said they had thought it would be an enjoyable activity to engage with
63% also cite Health Reasons as a motivating factor for taking part.

Impact on activity levels:

Q: How many days in an average week do you engage in more than 30 mins of physical activity?:

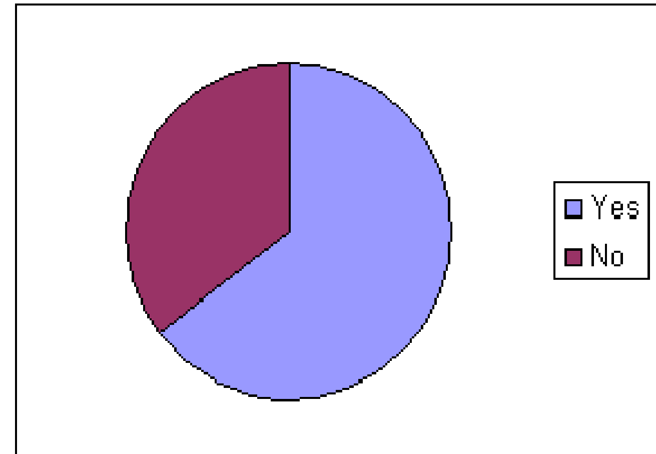
Responses:

I day	0
2 days	2
3 days	10
4 days	2
5 days	2
6 days	2
7days	9



Q: Has being part of this activity made you more active in your everyday life?

Responses:		
Yes	20	65%
No	11	35%



Q: Has it encouraged you to take part in other physical activity?

Responses:		
Yes	17	55%
No	14	45%

Q: Has it improved any aspect of your health or health condition?

Responses:		
Yes	24	80%
No	6	20%

Q: Do you think being part of this activity will have any long-term effect on your health or other areas of your life?

Responses:		
Yes	27	90%
No	3	10%

Appendix 5 New Age Kurling

Part 1: Project Monitoring Data – 2009-11

New Age Kurling and New Age Bowls 2009 - 2011

Lincolnshire totals

Total Participants 3086

Total Volunteers 445

		Mar-09	Jun-09	Sep-09	Dec-09	Mar-10	Jun-10	Sep-10	Dec-10	Mar-11	Total	Targets		Actual		Target %
												Year 1	Year 2	Year 1	Year 2	Year 2
Participants	Male	4	177	150	137	154	162	116	213	68	1181	120	330	502	851	258
	Female	14	144	285	311	234	267	209	320	121	1905	120	330	868	1575	477
	Disabled	5	186	123	141	196	142	109	98	34	1034	180	495	471	539	109
	under 16		25	26	9	123	120	11	191	51	556			183	556	
	over 45	18	152	350	439	176	296	264	355	190	2240			1135	2240	
	BME			4	11	7	8	2	3		35			22	35	
	New to spor	14	95	137	54	73	30	102	65	38	608			373	608	
Volunteers	Male	1	4	14	16	11	15	35	38	28	162	16	44	30	118	268
	Female	3	8	28	42	16	25	48	60	53	283	16	44	81	239	543
Throughput	Male		186	772	757	666	846	1356	5297	3058	12937	5952	16032	-3571	-3094.6	-19
	Female		155	1168	1338	1124	1247	2475	3474	3153	14135	5952	16032	-2167	-1897.4	-12
	Disabled		186	748	553	892	549	1225	6639	3345	14137	8928	24048	-6549	-9911	-41
	M/F		341	1940	2095	1790	2093	3831	8771	6211	27072	11904	32064	-5738	-4992	-16
	New clubs		8	20		7	4	3			42		34			124
	SK NK		3	5		4	3				15					
	BBC SH		1	3		1					5					
	VL		4	2		1		1			8					
	EL			4		1	1	1			7					
	LCC			6				1			7					

Source: Lincolnshire Sports Partnership

		Total	Target	Target %
Participant:	Male	1181	330	358
	Female	1905	330	577
	Disabled	1034	495	209
	under 16	556		
	over 45	2240		
	BME	35		
	New to spor	608		
Volunteers	Male	162	44	368
	Female	283	44	643
Throughput	Male	12937	16032	81
	Female	14135	16032	88
	Disabled	14137	24048	59
	M/F	27072	32064	84
	New clubs	42	34	124
	SK NK	15		
	BBC SH	5		
	WL	8		
	EL	7		
	LCC	7		

Source: Lincolnshire Sports Partnership

Part 2: New Age Kurling and Bowling Survey

Profile of Participants:

Number in survey (n):	30
Age Range:	55 - 88 yrs
Av. (mean) age:	71 years
Median age:	70 years
Interquartile Range (ages):	66 - 80 years

Generally: an older/retired age-range,
& fairly even gender split

	M	**F**
no.	12	15
%	44%	56%

Fitness Levels of participants:

Q: 'How would you describe yourself?'

Programme appears accessible to wide range of people
(including those who don't consider themselves fit)

Responses:

		% of responses
Very Fit	2	8%
Fit	23	76%
Not Fit	5	16%

Participation:

Q: 'How often do you take part (in Kurling)?'

Evidence of regular participation
All 30 took part at least once a week
(17% more than once a week)

Responses:

		% of responses
<1 per week	--	0%
once a week	25	83%
>1 per week	5	17%

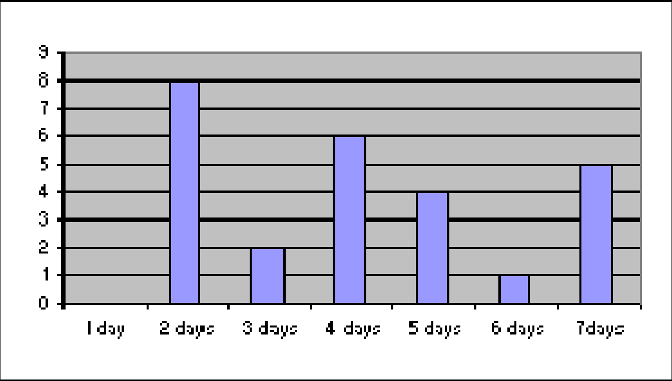
Motivation to take part:

70% of people surveyed said they took part in New Age Kurling for Social Reasons Although only 27% said they participated for Health Reasons, 66% of respondents said they had thought it would be an enjoyable activity to engage with (20 people).

Impact on activity levels:

Q: How many days in an average week do you engage in more than 30 mins of moderate physical exercise?:

Responses:	
I day	0
2 days	8
3 days	2
4 days	6
5 days	4
6 days	1
7days	5



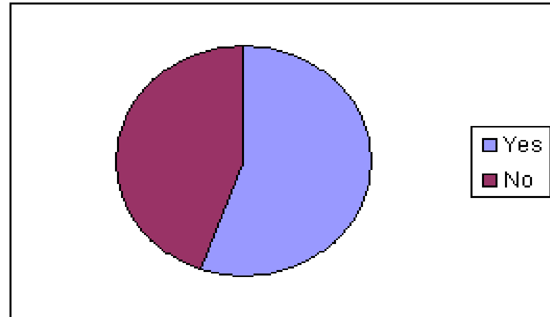
Popular well-received activity people seem to enjoy - waiting lists reported at some venues

Q: Has being part of a kurling group made you more active?

Responses:	
Yes	16
No	13

(Positive response from 55%)

Introduced sport/physical activity to some people for the first time.



Q: Has it encouraged you to take part in other physical activity?

Responses:		
Yes	9	(Line-dancing given as a popular 'follow-on')
No	20	

Q: Has kurling improved any aspect of your health or health condition?

Responses:		
Yes	11	(Improvements in flexibility reported)
No	16	
Don't know	1	

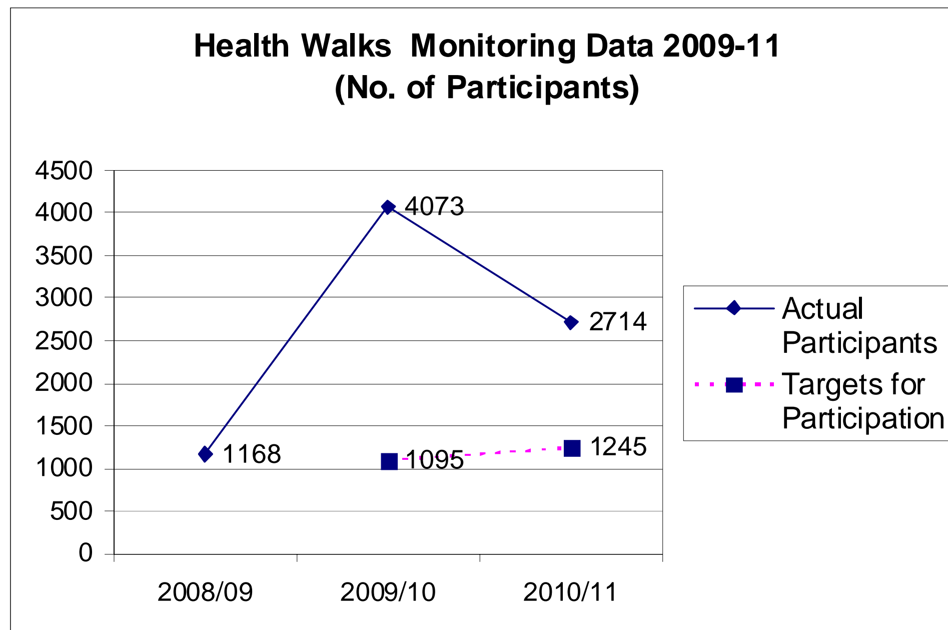
Q: Do you think being part of this activity will have any long-term effect on your health or other areas of your life?

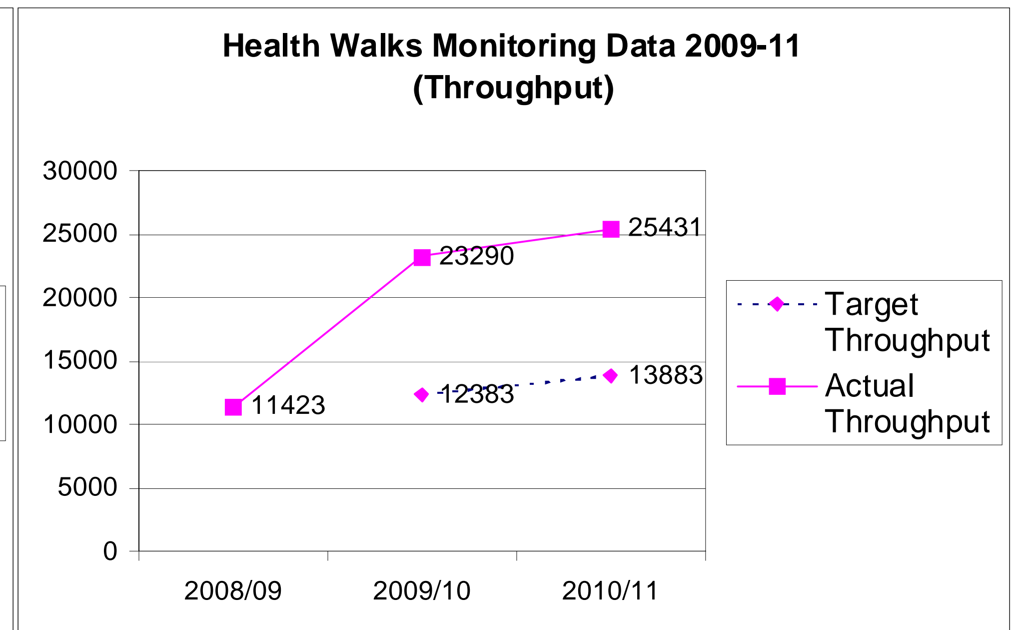
Responses:		
Yes	14	52% said they thought it would have a long-term effect, including impacts on social aspects / friendships and physical wellbeing.
No	12	
May do/not sure	1	

Appendix 6: Overall Project Data Health Walks, Exercise Referral and Fit Kids 2008-11

6.1 Health Walks 2008-11

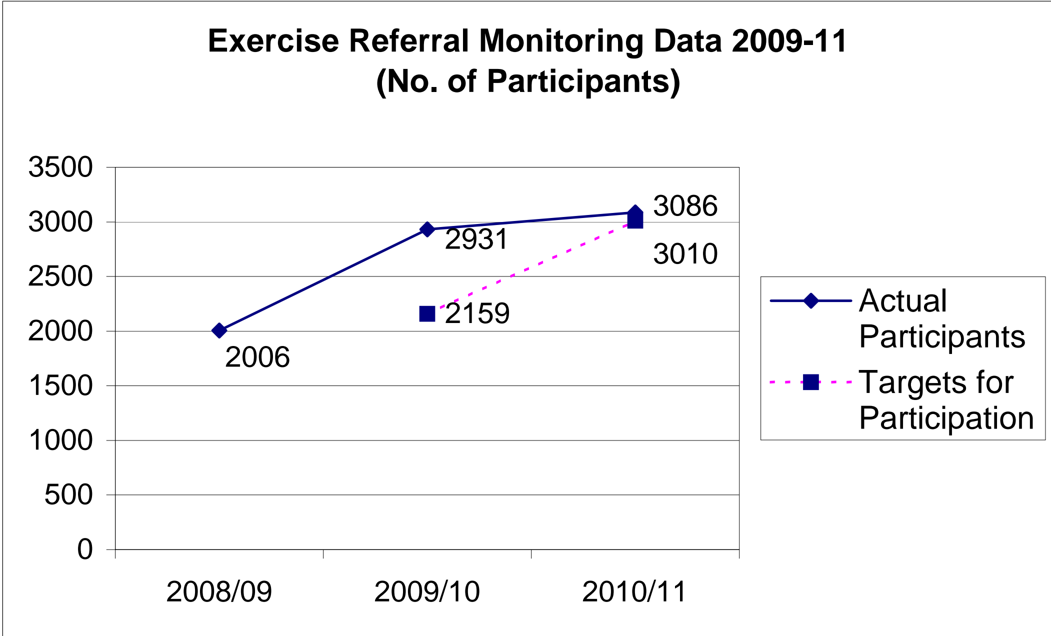
County	Participants	Throughput
Actual 08.09 Total	1168	11423
Targets 09.10	1095	12383
Actual 09.10 Total	4073	23290
Targets 10.11	1245	13883
Actual 10.11 Total	2714	25431
Overall Targets	2340	26266
Overall Actual 2009-11	6787	48721

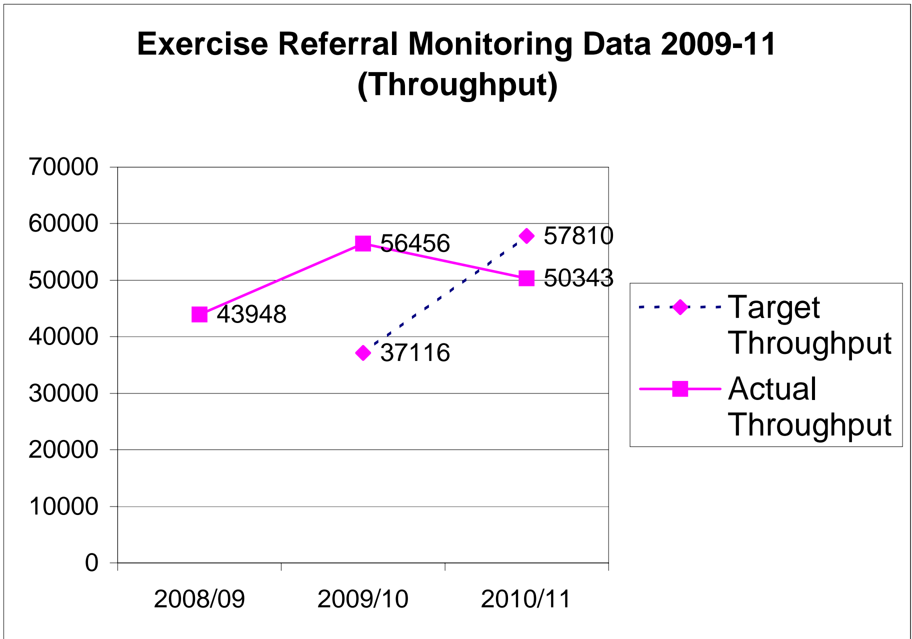




6.2 Exercise Referral 2008-11

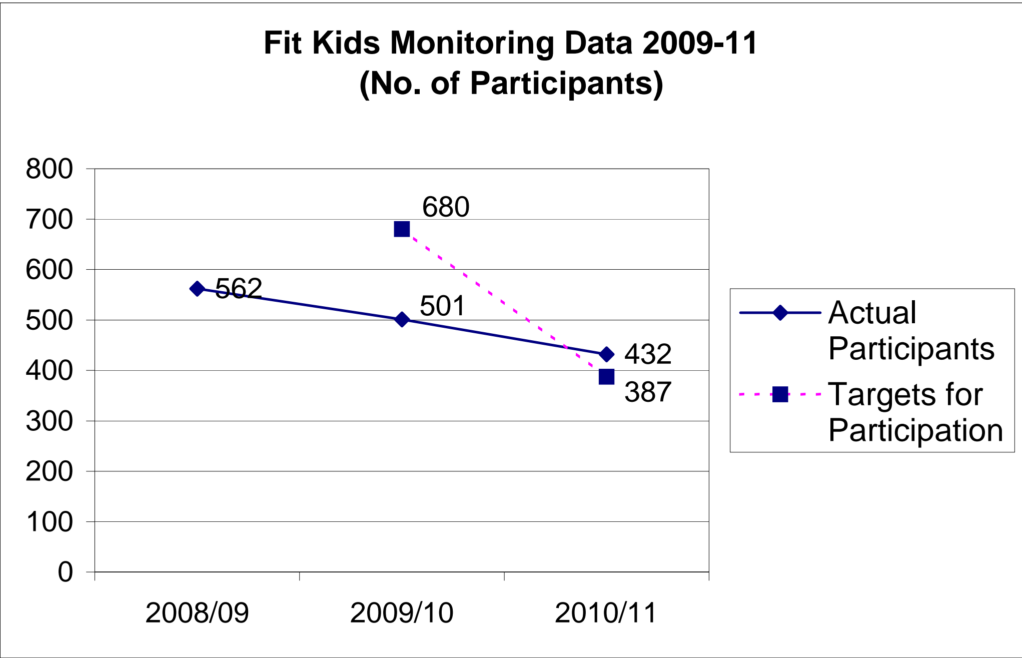
County	Participants	Throughput
Actual 08.09 Total	2006	43948
Targets 09.10	2159	37116
Actual 09.10 Total	2931	56456
Targets 10.11	3010	57810
Actual 10.11 Total	3086	50343
Overall Targets	5169	94926
Overall Actual	6017	106799

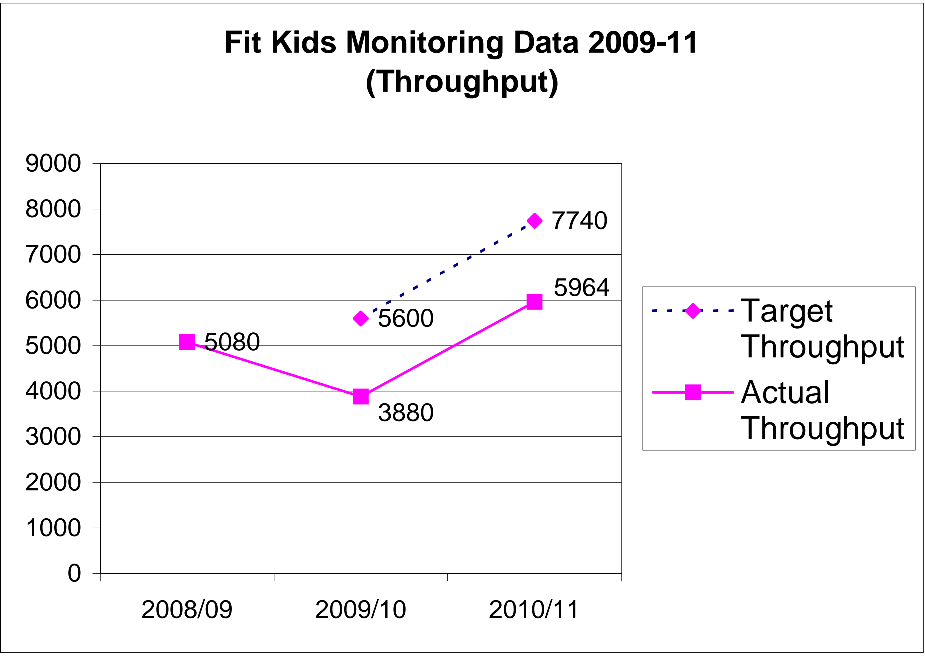




6.3 Fit Kids 2008-11

County	Participants	Throughput
Actual 08.09 Total	562	5080
Targets 09.10	680	5600
Actual 09.10 Total	501	3880
Targets 10.11	387	7740
Actual 10.11 Total	432	5964
Overall Targets	1067	13340
Overall Actual	933	9844





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