



Men on the Move

Activity Programme

Evaluation Report

January 2013

Supported by:



Mayo Sports Partnership



Comhpháirtíocht Spóirt Mhaigh Eo
An Irish Sports Council Initiative



West of Ireland Cardiac Foundation



West of Ireland Cardiac Foundation

Fighting Heart Disease & Stroke

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Foreword

Health Promotion HSE West, Mayo Sports Partnership and HSE Primary Care Services are pleased to present the findings from the Men on the Move Activity Programme, a project which was conducted in Mayo in 2012. This report basically outlines a very successful project in relation to increasing physical activity levels and creating awareness and understanding of the importance of physical activity and the health benefits on physical as well as mental health and well-being. It has engaged men in sociable physical activity programmes, in a group environment, which are self sustaining in the community.

In Ireland over 26% of men are not meeting the recommended level of physical activity of, at least 30 minutes of moderate-intensity activity on 5 days a week (SLÁN Survey, 2007). In addition, the prevalence of overweight and obesity has significantly increased. 64.5% of men in the age group '36-50 years' are overweight and 11.8% are obese. Similar levels exist in the age group '51-64 years' (IUNA, 2011). The greatest increases are observed in men aged 51-64. There is also a growing awareness and unease about the burden of ill-health experienced by men.

Research demonstrates that physical inactivity is strongly associated with the risk of developing chronic life threatening illnesses, including heart disease, cancer, stroke, diabetes as well as overweight and obesity. Premature death, illness and disease from overweight and obesity have many adverse consequences, not only for the person themselves, their families but also the health care services.

There is no single intervention or approach that will, in itself adequately challenge the problem of physical inactivity, overweight and obesity in Ireland. Hence a strategic approach is needed to identify actions that can be undertaken in a co-ordinated way through partnership working between statutory, voluntary and community groups. The Men on the Move Activity Programme is a prime example of successful partnership working and builds on the work of the Task Force on Obesity in 2005 and the subsequent HSE Framework for Action on Obesity 2008-2012, by increasing the proportion of physically active adults among the population.

The Men on the Move Activity Programme provides a great example of a practical, achievable and a community-based approach to encouraging men to adopt healthy lifestyle behaviours which have very positive outcomes for the men themselves, their families and society in general.

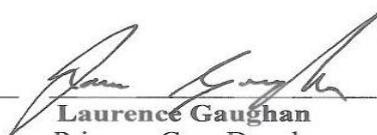
Finally, we would like to thank all the participants in the Men on the Move Activity Programme who contributed to this study. We hope that they will continue to enjoy the benefits of an active healthy life.



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Staff of Family Support Centre, Ballina

Venues which were offered e.g. halls, community centres etc

Volunteers who assisted with running of events i.e. 5K Fun Run/Walk

Glossary and Definition of Key Terms

Anthropometry

Anthropometry is the study of human body measurements. Anthropometric measurements used for adults usually include height, weight, body mass index (BMI), waist-to-hip ratio, and percentage of body fat. These measures are then compared to reference standards to assess weight status and the risk for various diseases. Anthropometric measurements require precise measuring techniques to be valid.

Baseline Risk Factor Profile of Participants

The health profile of the participants at the start of the Programme, provide a reference point from which to measure the impact of the Programme (a **risk factor** is a variable associated with an increased risk of disease e.g. physical inactivity, overweight, smoking).

Body Mass Index (BMI)

BMI is used to indicate healthy weight, overweight and obesity:

- **Healthy weight:** BMI 18.5 – 24.9
- **Overweight:** BMI 25.0 – 29.9
- **Obese:** BMI >30.0

Waist Measurement

Waist circumference is one of the most practical tools to assess abdominal fat for chronic disease risk and during weight loss treatment. A high waist circumference or a greater level of abdominal fat is associated with an increased risk for type 2 diabetes, high cholesterol, high blood pressure and heart disease (United States Department of Health and Human Services (HHS)). Excess weight is also linked to sleep apnoea, infertility, stress, depression, gallstones, complicated pregnancy and arthritis.

- **Healthy**
Men less than 94 cms (37 inches)
Women less than 80 cms (32 inches)
- **Increased risk**
Men 94 – 101.9 cms (37 – 40 inches)
Women 80 – 87.9 cms (32 – 35 inches)
- **High risk**
Men greater than 102 cm (40 inches)
Women greater than 89 cms (35 inches)

Blood Pressure Blood pressure is measured as systolic (sis-TOL-ik) and diastolic (di-a-STOL-ik) pressures. "Systolic" refers to blood pressure when the heart beats while pumping blood. "Diastolic" refers to blood pressure when the heart is at rest between beats. Normal is categorised as < 140mmHg systolic blood pressure (SBP) and <90mmHg diastolic blood pressure (DBP). High is categorised as ≥140mmHg SBP and ≥90mmHg DBP.

Health Service Executive (HSE)

National health organisation responsible for the provision of healthcare in Ireland.

International Physical Activity Questionnaire (IPAQ)

A previously validated instrument used to collect self report **physical** activity data on population samples.

- **High Active** Engaging in at least one hour of moderate or 30 minutes of vigorous intensity physical activity per day.
- **Moderately Active** Engaging in at least 30 minutes of moderate intensity physical activity on most days.
- **Low active** Not meeting either of the previous criteria for high or moderately active.

Irish Sports Council (ISC)

A national body that plans, leads and co-ordinates efforts to promote sports and physical activity in Ireland.

Normal Blood Sugar Ranges

A normal blood glucose level is 4.0-6.0 mmol/l before meals (preprandial) and less than 10.0 mmol/l two hours after meals (postprandial), although this can vary from person to person. (Health Service Executive)

Obesity and Men

The relevance of weight to men is that they tend to deposit fat intra-abdominally leading to the apple-shaped android form of obesity, compared to pear-shaped gynoid form of obesity in women, whose fat tends to be deposited in their hips and thighs. However, this position is changing with more women developing central obesity, especially from premenopause. This visceral fat is not an inert substance. It has its own endocrine function, with the creation of fat toxins that can lead to the fat related cancers, such as prostate, testis, bowel, liver, kidney or oesophagus. It also leads to a higher risk of hypertension, hyperlipidaemia and diabetes as a result of metabolic syndrome. Other consequences of excess weight include an increased risk of dementia and sleep apnoea (European Commission, 2011).

Sedentary

Sedentary means that your lifestyle is not very active. This happens if you sit most of the time, at work and at home. Sedentary activities include computer work and driving. You can balance these by having more active leisure time.

Statistical Terms

Standard Deviation (SD) is a measure of the spread of statistical data.

Standard Error of the Mean (SEM) is a measure of accuracy of an estimate and is used in the calculation of confidence intervals.

Interquartile Range is a measure of spread of a set of observations. It is calculated by finding the point above which the top 25% of observations lay, and the point beneath which the bottom 25% of observations lay.

Executive Summary

The purpose of this report is to provide a descriptive account of the evaluation of the impact of the Men on the Move Activity Programme, with a view to informing the service provision of future physical activity programmes. The initiative is a partnership project between Mayo Sports Partnership, Mayo Primary Care Services, Health Promotion Services HSE West, Croí (West of Ireland Cardiac Foundation), and Media partner Mid West Radio.

Context

International research demonstrates that physical inactivity is strongly associated with the risk of developing chronic life threatening illnesses, including heart disease, cancer, stroke, diabetes as well as overweight and obesity. Men's health research has also demonstrated that substantial health benefits can be achieved by participating in regular physical activity (European Commission, 2011). In Ireland over 26% of men (Morgan et al., 2008) are not meeting the recommended level of physical activity of, at least 30 minutes of moderate-intensity activity on 5 days a week, as outlined in the National Guidelines on Physical Activity for Ireland (2009). In addition, the prevalence of overweight and obesity has significantly increased. 64.5% of men in the age group '36-50 years' are overweight and 11.8% are obese. Similar levels exist in the age group '51-64 years' (IUNA, 2011). The greatest increases are observed in men aged 51-64.

There is also a growing awareness and unease about the burden of ill-health experienced by men (Richardson, 2004, McEvoy & Richardson, 2004). Male life expectancy continues to be lower than female life expectancy (European Commission, 2011). The National Men's Health Policy 2008-2013 recommends targeting men as a population group and the need to develop effective models for working with men. A report on Sport and Recreational Exercise among Adults in Mayo and Sligo between 2007-2009, demonstrated that the majority of sports played by adults consists of individual rather than team activities, with the latter very highly concentrated among young males, most of whom drop out by their mid-thirties (Kelly & Lunn, 2011). This significant age and gender pattern of sport participation informed Mayo Sports Partnership of an important gap in the provision of physical activity initiatives in the area and led to the planning and the development of the Men on the Move Activity Programme.

Aim of Programme

The main aim of the Men on the Move Activity Programme is to increase the level of physical activity amongst men over 35 years of age. The emphasis in the Programme is to create awareness and understanding of the importance of physical activity and the health benefits not just on physical health but on mental health and well-being.

Programme Description

The Men on the Move Activity Programme is a 16 week physical activity Programme with a variety of activities for men aged 35 to 74 years old. The Programme was delivered in 3 pilot sites in Co. Mayo: Ballina, Claremorris and Westport. The Programme followed the Department of Health and Children's (DOHC) National Physical Activity Guidelines for Ireland (2009).

Methods

The evaluation process consisted of three components: health screenings, self-reported questionnaires and fitness tests. The evaluation was conducted over four stages: at the start of the Programme (Baseline), end of Phase 1, end of Programme and 6 Months follow-up (after the start of Programme).

The sampling frame consisted of 136 men. These men were recruited using an effective recruitment strategy 'a free health check', as a hook to engage the men to attend the information evenings in Ballina, Claremorris and Westport and to register for the Programme. A timeline of 24 weeks was allowed for the evaluation.

Results

This report describes the impact of the Men on the Move Activity Programme on the participants in relation to the following:

- Objective Risk Factors
 - Waist Circumference
 - BMI
 - Fitness Level
- Subjective Health Measures
 - Physical Activity
 - Lifestyle Behaviours
 - Mental Health and Well-being
- Qualitative Study

This section draws together the principal themes that emerged from the qualitative study. It will discuss: the factors relating to the Programme which engaged men and motivated them to attend the Programme; the overall impact of the Programme on fitness, health and quality of life; perceptions of the Programme design and delivery and the men's views about the future of the Programme.
- Sub-study Group

This section presents the results of a sub-sample of the participants who attended all 3 stages of the measured assessments (start of Programme, end of Phase 1 and end of Programme). Specific and stringent statistical tests were conducted on this data to test for statistical significance.

The report also describes the effectiveness of the Programme in supporting the maintenance of physical activity behaviour change in the participants, six months after the start of Programme. The results will be discussed in the following 3 sections:

Section 1: Demographic and Baseline Risk Factor Profile of Participants

The majority of men (74.7%) participating in the Programme were aged between 35-54 years of age. 68% were employed. Over 52% of the men completed second level education and 42% had completed some form of post leaving certificate education. The Programme was successful in recruiting men with a high level of risk factors. Overall 75% of the men screened at the start of the Programme had high blood pressure ($\geq 140/90$ mmol/L). The majority of men (87.7%) reported that they were actively trying to manage their weight with nearly two thirds of the men (65.2%), based on BMI calculations, in the obese categories. Only 1% of the men were in normal range for BMI. Body fat distribution, also an indicator of disease risk, identified that over two thirds of the men (68.9%) were in the high risk category, when their waist circumference was measured. The majority of men (83.7%) reported that they were not happy with their level of physical activity. In addition nearly two thirds of the men (64.6%) were unhappy with their energy levels.

The main reasons expressed for joining the Programme were: to improve fitness and health; to lose weight; to socialise and meet new friends; to be more active and to be able to exercise in a group.

The results in this study demonstrate lower levels of physical activity than reported in the SLÁN 2007 Survey of Lifestyle, Attitudes and Nutrition in Ireland at the start of the Programme (Morgan *et al.*, 2008). Less than one quarter of men (23%) reported that they participated in vigorous/strenuous activity (high active). The SLÁN 2007 Survey reports that 32% of men aged '18-65+ years' participated in the 'high active' category. In addition 30% of the men did not meet the recommended guidelines in this study for physical activity. In the SLÁN 2007 Survey, 26% of men did not meet the guidelines. Comparisons are not possible due to the different age bands in this study (35-74 years).

The growing level of physical inactivity among men is intensified by their poor dietary habits. Dietary management is a fundamental element in maintaining weight and reducing risk factors for high blood pressure, high cholesterol, CHD, type 2 diabetes, cancer and other chronic conditions. The Food Pyramid (Department of Health, 2012) provides healthy eating guideline to encourage people to eat a variety of foods, incorporating advice on cooking, alcohol consumption, weight management and physical activity. In relation to consumption of the recommended level of fruit and vegetables, over 93% of the men did not meet the guidelines compared to 59% of men in the SLÁN 2007 Survey. In addition, over 40% of the men reported consuming fried food twice a week or more. The evidence-base demonstrates that eating fat laden food can lead to weight gain and obesity

A healthy diet, regular physical activity and participation in group-based activities has been shown to improve the quality of life and reduce symptoms of anxiety and depression. 17% of the men reported that their lives were limited by anxiety, stress or depression 'moderately' or 'quite a lot'. Over 27% of men reported that they were 'slightly' affected by anxiety, stress or depression. Research has shown how stress can be damaging to men's health, as a result of engaging in health-compromising behaviours (e.g. excessive alcohol consumption) as a means of coping with stress.

Section 2: Impact of the Men on the Move Activity Programme

Objective Risk Factors

A high prevalence of obesity was observed in the Men on the Move participants evident from the screenings at the start of the Programme. Waist circumference was measured and BMI calculated at each stage of the Programme. The results presented in this report demonstrate that improvements were seen in waist circumference between the start of the Programme and the end of Phase 1. The cut-off point established for high risk for men's waist circumference (≥ 102 cms/40 inches) identified that over 66% of the men were in the high risk category at the start of the Programme. By the end of Phase 1, the percentage of men in the category had reduced to 51%. This pattern was consistent at the end of the Programme with a further decrease to 43% of the men measuring into this high category. BMI levels recorded throughout the Programme also demonstrated the impact of the Programme in promoting weight loss. Overall improvements were seen in BMI between the start of the Programme and the end of the Programme with a reduction in the obese categories from 65% at the start of the Programme to 45% at the end of the Programme.

Fitness levels were also measured at each stage in the Programme. An endurance 1 mile fitness test was held in each Centre. The purpose of performing the test was to provide information on start of Programme fitness levels and to examine levels of fitness throughout the Programme. The men were asked to walk or run or a combination of both as fast as they could. The results demonstrate a pattern of reduction in fitness test times, with the majority of men reducing their fitness times at each stage.

The results were grouped into categories to show the level of changes. The largest decreases in reduction in fitness test times were seen, in the following categories: '11-15%', '21-30%' and '>30%'.

18% of men reduced their fitness test time by '11-15%', 22% of men improved their time by 21-30% and 19% of men achieved overall reduction in their time of over 30% between the start of the Programme and the end of the Programme.

Subjective Health Measures

Physical Activity

In general, the main improvements were seen in the 'low' active and 'high' active categories. The 'low' active category represents the men who do not meet the recommended guidelines for physical activity of at least 30 minutes of physical activity weekly. Overall, 30% of the men were in the 'low' active category at the start of the Programme. However by the end of the Programme, the percentage of men in this category decreased to 18%. This pattern of improvement was consistent at 6 months follow-up with only 4% of the men in the 'low' active category. Improvements were also seen in the 'high' active category between the start of the Programme and the end of Programme. 35% of men measured into the 'high' active category at the end of the Programme compared to 23% at the start of the Programme. A further increase was seen at 6 months follow-up with 47% of men now in the 'high' active category.

In addition corresponding improvements were also seen in the level of sedentary activity (≥ 6 hours sitting) reported by the men. 43% of the men reported that they spent up to '6 hours or more' sitting at the start of the Programme. By the end of the Programme the percentage of men reporting sedentary activity of this level had reduced to 33%. A further decrease of 3% was also seen at 6 months follow-up.

Health Status, Mental Health and Well-being

The most noticeable improvement in perceived (self-rated) health was seen between the start of the Programme and the end of the Programme. 30% of men rated their health as 'very good' at the start of the Programme. By the end of the Programme an increase was seen with 44% of men rating that their health was 'very good'.

No major improvements were seen in the 'Mental Health' domain which measured stress, anxiety and depression. Over 15% of the men still reported that stress, anxiety and depression limited their daily activities 'moderately' or 'quite a lot' and approximately one third of the men (31.8%) reported being 'slightly' affected by stress, anxiety and depression. However, in the 'Vitality' domain, there was a marked increase in the level of energy reported throughout the different stages in the Programme with nearly double the men (68.2%) reporting satisfaction with their energy level at the end of the Programme compared to 35.4% at the start of the Programme. This level of reporting was maintained and even increased, with over 75% of the men reporting being satisfied with energy levels at 6 months follow-up.

Lifestyle Behaviour

Alcohol-related harm is a major public health concern in the EU, accounting for over 7% of all ill health and early deaths (European Commission, 2009). A high level of men (89%) reported that they drank alcohol at the end of the Programme similar to the start of the Programme (88%). However, increases were observed in patterns of consumption and the level of alcohol consumed at the end of the Programme for those who reported that they drank alcohol. The average number of drinks consumed increased from 6.5 standard drinks at the start of the Programme to 8 standard drinks at the end of the Programme.

Research has shown that men's diets are generally less healthy and less nutritiously balanced than women's diets (European Commission, 2011). Overall, the majority of men (93.7%) still do not meet the recommended daily guidelines of consumption of 5 or more portions of fruit and vegetable (end of Phase 1: 94.4%: end of Programme: 94%).

In addition, an increase in the consumption of red meat was observed. The majority of men (60.6%) reported that they consumed red meat 'daily' or '4-6 times a week' at the end of the Programme compared to 54.2% at the start of the Programme. However a reduction in the consumption of fried food 'twice a week or more' was seen at the end of Phase 1 and at the end of the Programme (end of Phase 1: 36%; end of Programme: 26.1%) compared to the start of the Programme (40.2%). In addition a reduction was seen in the use of salt while cooking at the end of Phase 1 and at the end of the Programme. Overall 31.8% of the men reported that they 'always' or 'usually' add salt to their food while cooking compared to over 36% at the start of the Programme. These results demonstrate that participants made changes in their dietary behaviour and eating and cooking habits. However a more comprehensive approach is required in the Programme to ensure the men receive the maximum support to improve their nutritional knowledge and to support dietary behaviour change and weight loss.

Sub-group Study

The sub-group study involved a sub-sample of the participants in the Programme (N=38) who attended all 3 stages of screening (start of the Programme, end of Phase 1 and end of Programme). Analysis was computed using the General Linear Model (GLM) – repeat measures design. The three health related profiles presented in the section are BMI, waist circumference and fitness level. Overall, there was a significant reduction seen in mean waist circumference between the start of the Programme and the end of the Programme of 4.5cms ($p<0.05$). Mean BMI values also decreased somewhat between the start of the Programme and the end of the Programme from 30.8 to 29.9. This difference was significant ($p<0.05$). Further significant reductions were observed in fitness test times: between the start of Programme and end of Phase 1, (Mean Difference 86.270, ± 17.33 , $p<0.05$) and between end of Phase 1 and end of Programme, (Mean Difference 62.432, ± 13.448 , $p<0.05$).

Qualitative Study

The qualitative study in this evaluation confirms the overall positive impact of the Men on the Move Activity Programme. Throughout the narratives and feedback there was a strong sense of how much the men had achieved from participating in the Programme. The majority of men reported increased levels of physical activity, fitness and energy. But importantly other positive spin-offs of the Programme included improved dietary habits, nutritional knowledge, and weight loss. In general the Programme contributed hugely to improving the quality of life of the men. The diversity of activities, the approach of the Leaders and on-going support received were contributors to motivating the men to adhere to the Programme. In addition the social aspect of the Programme, the importance of the 'group' and the fact that the Programme was 'male only', were stressed as essential to the success of the Programme and key motivating factors.

Section 3: Recommendations

The Men on the Move Activity Programme has demonstrated that it is a model programme and that it has transferability as an intervention, based on the fact that it was successfully implemented and delivered in three different locations. In order to ensure sustainability into the future, it is essential that funding is ring fenced to allow the Men on the Move Activity Programme to be rolled-out to other towns throughout Ireland. Some key recommendations include the following:

- **A targeted approach in recruiting men for the Programme**

Target men who are vulnerable by partnering with Men's Development Projects (e.g. Men's Sheds) and Community Development Projects (e.g. Resource Centres) to support men affected by marginalisation, disadvantage and poverty. This will help to improve the reach of the Men on the Move Activity Programme. Lower the age criteria to 30 years in order to recruit younger men as they fall out of competitive sport and become sedentary and overweight.

In addition, target retired men to prevent them falling into the pattern of sedentary behaviour, overweight and obesity.

- **Continue to utilise novel strategies to engage men**

Continue to utilise novel strategies to engage men effectively by bringing health screening into the community to men. The free health check focusing on body measurements is effective as a 'hook', and should be used as a recruitment strategy to engage men who are physically inactive and overweight to participate in health promotion programmes.

- **Include a more comprehensive approach to health education**

The nutritional session and health advice and information delivered throughout the Programme was an important element in the Men on the Move Activity Programme. However this report recommends the inclusion of a comprehensive series of health education sessions on nutritional information, dietary management and healthy lifestyle behaviour throughout the Programme. This will help to support men who are actively trying to manage their weight and will promote healthy lifestyle behaviour.

- **Mental Health Promotion**

Include a mental health promotion message in the Programme to help to reduce the stigma of mental health problems and encourage men to seek help and to cope effectively with stress.

- **Men on the Move Maintenance Programme**

Provide follow-on Men on the Move Activity Programmes, in order to support men to achieve their aims and also to help maintain the physical activity behaviour changes men have achieved on the Programme.

- **Acknowledge the importance of the social aspects of Sport Programmes like the Men on the Move Activity Programme**

It is essential that sports policy in Ireland should recognise and support the social aspects of sport in Programmes like the Men on the Move Activity Programme; taking into account the enormous social benefits, comparable to the benefits of the physical exercise itself.

1. Introduction

1.1 Context

The evidence base demonstrates that physical inactivity is strongly associated with the risk of developing chronic life threatening illnesses, including heart disease, cancer, stroke, diabetes as well as overweight and obesity. Insufficient physical activity is the fourth leading risk factor for mortality, accounting for approximately 3.2 million deaths annually (WHO, 2010). According to the report, participation in 150 minutes of moderate physical activity each week (or equivalent) is estimated to reduce the risk of ischaemic heart disease by approximately 30%, the risk of diabetes by 27%, and the risk of breast and colon cancer by 21–25%. It also has a positive effect on musculoskeletal health and psychological wellbeing (Bauman *et al.*, 2009). Physical activity also modifies other risk factors such as hypertension, total cholesterol and high-density lipoproteins and is associated with other healthy behaviours such as healthy diet and non-smoking (WHO, 2009). A recent study highlights that men in the European Union were found to exercise or play sports more than women; nevertheless, 56% of men in the EU were found not to engage in exercise/sport weekly (Eurobarometer, 2010). The results for Ireland demonstrated that 25% of Irish men do not engage in physical activity weekly (15-75years +).

Overweight and obesity, internationally and in Ireland is a major health concern. According to Dyer *et al.*, (2005) the long-term outlook for people who are overweight and obese is adverse. Hu *et al.*, (2004) showed that obesity is strongly associated with major risk factors, such as raised BP, glucose intolerance, type 2 diabetes, and high cholesterol. The definition of obesity is based on body mass index (BMI), a measure of weight that is corrected for height that is strongly correlated with body fat (Dyer, *et al.*, 2005). In addition, the prevalence of overweight and obesity has significantly increased. 64.5% of men in the age group '36-50 years' are overweight and 11.8% are obese. Similar levels exist in the age group '51-64 years' (IUNA, 2011). According to IUNA, the greatest increases observed in men aged 51-64. In relation to physical activity (PA) the National Survey of lifestyle attitudes and Nutrition (SLÁN 2007) showed that only 32% of Irish men took part in vigorous/strenuous activity for at least 20 minutes three or more times a week (Morgan *et al.*, 2008). In addition the overall pattern of higher physical activity reduced significantly with increasing age (age 18-29: 32%; 30-44: 27%; 45-64: 21%; 65+: 10%).

In addition, a report from Safefood, a State funded health promotion group, on the cost of overweight and obesity on the island of Ireland, has estimated the annual cost to be €1.64 billion (€1.13 billion Republic of Ireland; €510 million Northern Ireland). The study, conducted by University College Cork (2012) found that in the Republic of Ireland, 35% of total costs (€398 million) represented direct healthcare costs i.e. hospital in-patient; out-patient; GP and drug costs. However, two thirds (65%) of the economic costs were indirect costs in reduced or lost productivity and absenteeism and amounted to €728 million.

Although many people think of health in terms of illness, health is a positive concept that covers physical, mental and social well-being (Department of Health and Children, 2000). Physical activity benefits every aspect of a person's health. In addition, adults who are overweight or obese gain similar health benefits from physical activity as people with a healthy body weight. Even when you do not lose weight, it is possible to gain the health benefits from being more physically active (Physical Activity Guidelines Advisory Committee, 2008).

1.2 Background

In a recent report on the State of Men's Health in Europe (2011) poor lifestyles and preventable risk factors account for a high proportion of premature death and morbidity in men. There is a strong gendered dimension to lifestyle choices and risky behaviours that place men at higher risk of ill health than women, yet these need to be considered within the context of economic, social, environmental and cultural factors.

A report by the authors Kelly & Lunn (2011) on Sport and Recreational Exercise Among Adults (Aged 16+) in Mayo and Sligo - 2007-2009 identified that policy initiatives must be at a local level. The results of this study informed the planning and the development of the Men on the Move Activity Programme. The study showed that the large majority of sport played by adults in Mayo-Sligo consists of individual rather than team activities, with the latter very highly concentrated among young males, most of whom drop out by their mid-thirties. This significant age and gender pattern identified in the report, informed Mayo Sports Partnership of an important gap in the provision of physical activity initiatives in the area.

1.3 Aim of the Men on the Move Activity Programme

The main aim of the Men on the Move Activity Programme is to increase the level of physical activity amongst men over 35 years of age. The Programme follows the Department of Health and Children's (DOHC) National Physical Activity Guidelines for Ireland (www.getirelandactive.ie). The HSE lead on Obesity is Dr. Nazih Eldin. The initiative is a partnership project between Mayo Sports Partnership, Mayo Primary Care Services, Health Promotion Services HSE West, Croí (West of Ireland Cardiac Foundation), and Media partner Mid West Radio. Funding for the Programme was provided by the National Task Force on Obesity, based on a proposal submitted by Thelma Birrane, Health Promotion Officer, HSE.

1.4 Programme Description

The Men on the Move Activity Programme is a Physical Activity Programme with a variety of activities which was offered to men aged 35-65 years old, in 3 pilot sites: Ballina, Claremorris and Westport with a view to rolling out the Programme throughout the County. The participants were recruited utilising a variety of methods:

- Information evenings in 3 towns including free health check
- Poster Specific Campaign
- Referral from community groups, community welfare staff and other agencies
- General advertising on Mid West Radio
- Local Print Media
- Local sports groups

Physical Activity Specialists were selected in the 3 towns to become Leaders for the Men on the Move Activity Programme. The Leaders were responsible for the structure, content, and the organisation of the Programme, consisting of an 8 week Programme with two sessions a week. The second Phase of the Programme commenced immediately after Phase 1 with a further course of 8 weeks. Health Education was included in the second Phase of the Programme at week 5, with an information session on diet and nutrition. A high emphasis was placed on fun and enjoyment throughout the Programme. However advice and information was offered throughout the Programme by the Leaders. In addition, the Programme availed of the natural environment and existing facilities for physical activity sessions e.g. greenways, walkways, athletic tracks, beaches, swimming pools and trails.

1.5 Terms of Reference of this Evaluation

The emphasis in the Programme was to create awareness and understanding of the importance of physical activity and the health benefits not just on physical health but on mental health and well-being.

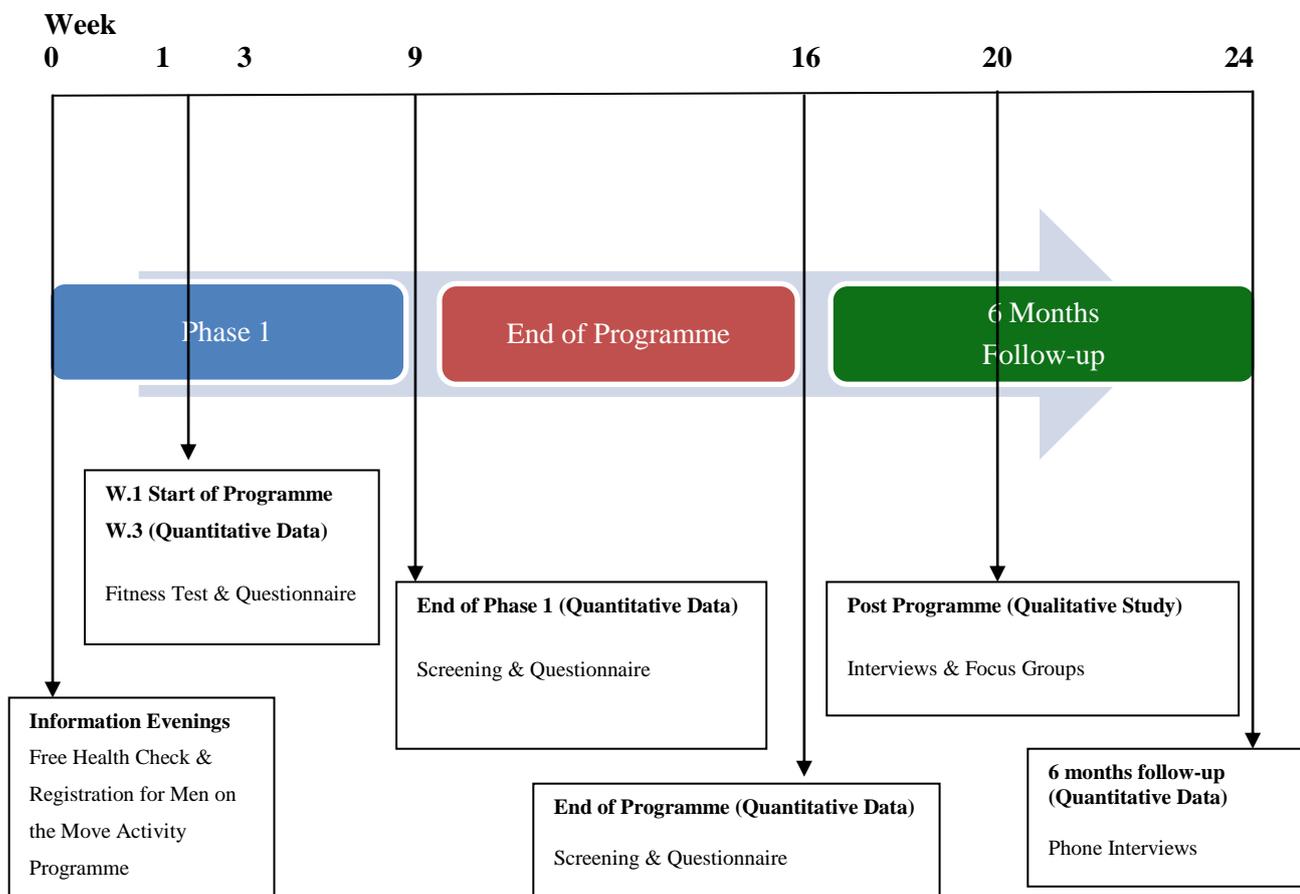
The specific research questions addressed in this evaluation are:

1. What impact has the Men on the Move Activity Programme had on the participants in relation to the following?
 - Objective Risk Factors
 - Physical Activity and Fitness Levels
 - Lifestyle Behaviours
 - Mental Health and Well-being
2. What motivated the men to participate in the Programme?
3. What were the characteristics of the Programme that appealed to the men and supported their engagement?
4. Has behaviour change in the participants been maintained six months after the start of Programme?

1.6 Framework for Evaluation

The stages for the evaluation of the Men on The Move Activity Programme are outlined in Figure 1.

Figure 1: Timeline of Evaluation by Data Collection



2. Methodology

A mixed method research approach was utilised in this study. Quantitative and qualitative design methodologies were employed:

- Quantitative Data
 - Health Screenings
 - Self-reported Questionnaires
 - Fitness Tests

A number of open-ended questions were included in the self-reported questionnaires to highlight participants' views.

- Qualitative Data
 - Interviews
 - Focus Groups

The data was collected at five stages:

- Start of Programme
- End of Phase 1
- End of Programme
- 4 Weeks post Programme
- 6 Months follow-up (after start of Programme)

2.1 Quantitative Data

2.1.1 Health Screenings

Public Information Evenings were held in each of the participating Centres with a free health check offered as a hook, to engage men to attend. The health check was carried out by Public Health Nurses, Primary Care Team Staff, Practice Nurses and Croí Health Screening Team and consisted of an assessment at the start of Programme of risk factors for Cardiovascular Disease (CVD) using a standardised approach (Blood Pressure, Glucose, Body Mass Index (BMI) and Waist Circumference). The results were recorded on a personal record card and were explained and discussed with the individual. Lifestyle advice was given using techniques of motivational interviewing. All individuals with elevated risk factors were referred to their GP, in accordance with screening protocol. Subsequent screenings were held at the end of Phase 1 and end of the Programme. These were carried out by the Croí Health Screening Nurse and the Researcher. These consisted of an anthropometric assessment (BMI and Waist Circumference). The results were recorded on the individual's personal record card/sheet, which they were encouraged to bring along to the screening in order to have a record of their results at each of stage the Programme. These results were explained and discussed with the individual. Lifestyle advice was given using techniques of motivational interviewing

2.1.2 Self-reported Questionnaires

Questionnaires were devised to meet the aim and objectives of the study. Following a pilot study, the survey instrument was refined. The first survey was administered on the third week of the Programme in order to allow the participants' time to settle into the Programme.

Questionnaires were also circulated at the end of Phase 1 and at the end of Programme. Follow-up was conducted by phone interview at 6 months after the start of Programme, on those who completed approximately 50% of Phase 1 of the Programme and 70% of the total Programme. The principle aim of the follow-up interview was to ascertain if behaviour change in the participants had been maintained six months after the start of Programme.

2.1.3 Fitness Tests

An endurance 1 mile fitness test was held in each Centre. The purpose of performing the test was to provide information on start of Programme fitness levels and to examine levels of fitness throughout the Programme. The men were asked to walk or run or a combination of both as fast as they could. The Leaders in each Centre recorded the individual times and called out the times to the participants for their personal information. The tests were performed at the following stages:

- Start of Programme
- End of Phase 1
- End of Programme

2.2 Qualitative Data

Two interviews and three focus groups were conducted in the Centres at the end of the Programme (week 20) to address the qualitative component in this study. The principle aim of the qualitative study was to examine the reach and effectiveness of the Men on the Move Activity Programme. Of particular importance, was to find out the factors that motivated the men to participate in the Programme and the characteristics of the Programme that appealed to men and supported their engagement. In addition, the study focused on finding out the overall impact of the Programme on health and the quality of life of the men.

2.3 Ethical Consent and Confidentiality

Consent was obtained from each individual prior to the initial health assessment. Written informed consent was obtained from all the participants at each stage of data collection. To ensure confidentiality and participant anonymity, all individuals were assigned a unique identification number/ID which was used for all documentation associated with data collection and computer records. All data was stored in a secured location by the Researcher and all data files were password protected. Once collected only the Researcher had direct access to the raw data and was capable of identifying individuals by their ID number. Participants also had a copy of their results on their personal card/sheet for their own information.

2.4 Data Analysis

Data analysis for the quantitative data consisted of descriptive frequencies and sub-group analysis which was analysed using the Statistical Package for Social Sciences (SPSS) version 17.0 and (SPSS) version 20 for windows. Analysis was computed in the sub-sample using the General Lineal Model (GLM) – repeat measures design. Qualitative data was analysed by performing a detailed content analysis on the data.

2.5 Quality Control

A standardised approach was adopted in the measurement of risk factors so that comparisons of measures could be repeated and be meaningful.

Blood Pressure Equipment

Blood Pressure was measured using the Omron M5I or a Mercury Sphygmomanometer, both of which are recommended for use by the British Hypertension Society (www.bhsoc.org/blood.pressure_list.stm). All equipment undergoes yearly calibration with the manufacturers.

Glucose Equipment

Glucose was measured using a glucometer, a medical device for determining the approximate concentration of glucose in the blood.

BMI

The Tanita model of weighing scales and the Seca Leicester height measure were used to calculate BMI. The weighing scales are calibrated as per the manufacturer's instructions.

3. Rationale

A recent report on the State of Men's Health in Europe (2011) highlights how in the 21st century, there are fewer opportunities for physical activity in everyday life, with the result that sedentary lifestyles have increased. Over half of men in the European Union do not reach recommended levels of activity, whilst approximately one in three are sedentary. In addition, a study focusing on physical activity prevalence in 20 countries (including 7 countries from the EU), reported that age-related declines in physical activity were much more frequently observed among men than among women (Bauman *et al.*, 2009).

This has been paralleled by a fivefold increase in obesity between the beginning and end of the last century (Helmchen, 2001). The growing number of overweight men across Europe is partially attributed to societal changes such as:

- Increasingly sedentary lifestyle
 - Decline in manual labour
 - Reduction in walking
 - Reduced opportunity for exercise
 - Changes in eating patterns
 - Alcohol consumption
 - Long working hours
- (European Commission, 2011)

In keeping with the World Health Organisation's globally recognised definition of health (WHO, 1946), a healthy man is one who is 'empowered to experience optimum physical, mental and social well-being and who experience health as a resource for everyday living'. The growth in the field of health promotion highlights that health behaviours are critically important in terms of influencing overall health.

Epidemiological studies implicate particular lifestyle patterns as a major factor in premature death rates among men (WHO, 2002; White & Holmes, 2006). In the context of supporting behaviour change and reducing premature mortality among men, there is a need to move beyond the understanding of men's behaviours to supporting men to change their behaviour (Brooks, 2001). In the Ottawa Charter for Health Promotion (1986), the core principle identified is to enable people through empowerment, to increase control over and improve their health and lives. The Men on the Move Activity Programme endorses this principle and sets out to create a supportive environment in a community setting to promote physical activity and reduce the risk factors for chronic diseases such as coronary heart disease (CHD), stroke, type 2 diabetes, cancer, osteoporosis and depression (Department of Health and Children, 2009).

However despite the fact that physical inactivity is an established risk factor for chronic diseases, there has been a significant gap in international and national physical activity surveillance compared to surveillance of other chronic disease risk factors. According to Bull *et al.*, (2004), comparisons of patterns of physical activity were unachievable until a decade ago largely due to the absence of standardised instruments suitable for international use. In the 1990's this deficit was addressed when an international group of academics developed a standardised instrument – the international physical activity questionnaire (IPAQ) (Craig *et al.*, 2003) to assess physical activity worldwide, and test its validity and reliability in 12 countries. The development of IPAQ provided the much needed measurements to support national monitoring and the inclusion of physical inactivity in risk factor surveillance systems.

According to the authors Hallal *et al.*, (2012) in a recent report in the Lancet journal on global physical activity levels, on a worldwide basis, 31.1% of adults (15 years or older) are physically inactive. The study reveals that over half of Ireland's grown-up population are not meeting the recommended levels of physical activity per week, women are more inactive (33.9%) than men (27.9%).

In addition, Ireland is the seventh worst country for lack of exercise out of the 36 European countries involved in the study, which was published as part of a special series of sports studies to coincide with the Olympic Games. The study also highlights that physical inactivity increases with age in all of the WHO regions, which is a pattern known to have a biological basis (Ingram, 2000) and that physical inactivity is more common in countries of high income than in those of low income (Bull *et al.*, 2004; Dumith, *et al.*, 2011). Whether or not this trend will persist in the future is unknown. Knuth & Hallal (2009) present the hypothesis that the social pattern might be shifting, this is reinforced by falling occupational physical activity (usually higher in people with low income than in those with high income) and increases in leisure-time exercise (more common in people with high income than in those with low income). In Ireland, it is well recognised that there is a significant social class gradient in physical activity and sports participation (Lunn, 2007b).

In Ireland, it is accepted that there is a need to broaden and expand the research base on men's health. It is also recognised that there is a lack of evaluation of health promotion programmes that exclusively target men (DOHC, 2008). The publication of the National Men's Health Policy in 2008 was an important step in promoting health and well-being for all men in Ireland. In addition, the National Centre for Men's Health was established in January 2008, with the aim of developing innovative and multi-disciplinary research and training programmes on men's health. According to Richardson & Carroll (2008) it is important to target men as a population group and to identify and develop models of working with men, as identified in the Health Promotion Strategy, 2000-2005 (Department of Health and Children, 2000).

The Men on the Move Activity Programme is an initiative that targets men who are inactive and over 35 years of age specifically. It takes into account the influence of male-gendering on men's health behaviours. A gendered approach to men's health acknowledges that it is against particular norms of masculine behaviour that men must constantly negotiate their own behaviour in relation to how they manage their health (Richardson & Carroll, 2008). The authors also stress that it is essential to recognise that men's health status is more than simply a consequence of biological, physiological or genetic functioning, but that it is also affected by much broader economic, social, cultural and environmental factors, which influence the way men perceive themselves and live as masculine within a specific culture. It is also widely accepted that social and economic factors, including poverty are key determinants of the health of men. This study adopts a health promotion approach by examining the determinants of regular physical activity and exercise in men.

Evidence-based research highlights how interventions aimed at addressing physical activity, dietary and lifestyle behaviour to reduce cardiovascular disease often are not well attended by men (Kirwan, 2011). Novel approaches are now being used to engage men for example; a new scheme, recently launched with the Premier League, aims to provide health clinics at football matches, in order to bring health services to men who may feel more comfortable having a check-up at a sports ground than they would using traditional health services, such as a GP's surgery. Professor Alan White, of Leeds Metropolitan University, is one of the initiative's driving forces. The authors Lombard *et al.*, (2009) report how low intensity, local community based interventions have the potential to support lifestyle change, but need to be tested on diverse groups. Gray *et al.*, (2009) suggest that by offering flexible programmes that educate men on how to avoid weight gain, which allow them to take ownership of their weight management, it may encourage them to adopt healthier lifestyles.

The Preston Men's Health Project (Kierans *et al.*, 2007) found that when men built up their own peer networks of support, this in turn helped them to support each other in health screenings. Additionally in Dublin, men experienced enormous unanticipated benefits in the Wellman Programme run by Glasgow Celtic. O'Brien *et al.*, (2009) highlight that membership of a group, enabled participants to share a common goal with other men (e.g. weight loss, or healthy eating), in an environment which has been negotiated as 'male'. This type of group activity is now being provided in Ireland in the form of the 'Men's Sheds'.

The Sheds provide an opportunity for men to spend time with each other in a healthy and productive manner (Department of Health and Ageing, 2010). The Irish Men's Shed Association works towards a future where all men have the opportunity to improve and maintain their health and well-being by participating in a community Men's Shed. Golding *et al.*, (2009) demonstrate in their research how Men's Sheds have the capacity to address many of the determinants of men's health (e.g. exclusion, unemployment, stress).

Furthermore the Carlow Men's Health Project (Kirwan, 2011), a community based programme, was demonstrated to be effective in modifying lifestyle behaviours and improving the quality of life in those who engaged in the Programme. The aim of the Programme was to build social capital among vulnerable men in Co. Carlow in order to support them to empower themselves and have control over their own health and lives. The Men on the Move Activity Programme adopts the recommendations from the Carlow Men's Health Project in its Programme design, in order to effectively engage with physically inactive men over 35 years of age.

This study proposes to evaluate the reach and effectiveness of the Men on the Move Activity Programme with a view to informing the service provision of future physical activity programmes.

4. Results of Evaluation

4.1 Introduction

The results of the evaluation are presented in two sections.

Section 1 presents a demographic, risk factor and health profile of the Men on the Move participants utilising objective and subjective health measures.

Section 2 presents the quantitative results of the impact of the Men on the Move Activity Programme with an outline of the changes between start of Programme, end of Phase 1, end of the Programme and 6 months follow-up. This section also documents the qualitative results of two interviews and 3 focus groups conducted with the participants in the Programme with a representation from the 3 Centres.

4.2 Section 1 Demographic, Risk Factor and Health Profile of Men on Move Participants

4.2.1 Response by Men on the Move Centres

One hundred and thirty six men attended the public information evenings in Ballina, Claremorris and Westport. The men were offered a free health check and invited to become involved in the Programme in their area. The men were asked how they became aware of the Men on the Move Activity Programme. Over 45% of the men reported that they had heard about the Programme on the radio (N=107) and 28% of the men had become aware of the Programme from friends (N=106). Table 1 presents the response rates for each component of the fieldwork at start of Programme; end of Phase 1; end of Programme and 6 months follow-up.

Table 1: Response by Men on the Move Centres

Centres	Sampling Frame	Description of Phases of Data Collection and Size of Sample Achieved									6 months follow-up	
		Start of Programme			End of Phase 1			End of Programme			Questionnaire	Telephone Interview
		Sample Achieved			Sample Achieved			Sample Achieved			Sample Achieved	Sample Achieved
		*S	*F	*Q	*S	*F	*Q	*S	*F	*Q	n	n
		n	n	n	n	n	n	n	n	n	n	n
Ballina	43	18	24	33	24	24	26	16	12	23	23	16
Claremorris	49	28	39	38	29	24	34	13	14	21	29	18
Westport	44	26	37	36	31	27	31	20	14	23	28	23
Total	136	72	100	107	84	75	91	49	40	67	80	57

*S-Screening Data

F-Fitness Test Data

Q-Questionnaire (Self-administered)

4.2.2 Demographic Profile

The demographic profile of the men is presented in Table 2. Overall, over 86% of the men were born in the Republic of Ireland. Over 80% of the men were married. 52.4% of the men reported that they had completed some form of secondary education and 42% of the men reported that they had completed post leaving certificate education. The majority of the men (68.3%) reported they were at work. 8.4 % of the men reported that they were unemployed and looking for work. Over 11% of the men were retired (see Table 2).

Table 2: Demographic Profile

Demographic Profile		n	%
Country of Birth	Ireland	93	86.9
n=107	Northern Ireland	1	0.9
	UK	13	12.1
Ethnicity	White Irish, Irish Traveller, any other white background	105	99.1
N=106			
Number of participants in Centres	Ballina	38	35.5
n=107	Claremorris	36	33.6
	Westport	33	30.8
Age	35-44 years	41	38.3
n=107	45-54 years	39	36.4
	55-74 years	27	25.2
Medical Card Status	Have a Medical Card	26	25
n=104	Have no Medical Card	78	75
Marital Status	Married/Partner	89	80.4
n=107	Single/Never married	13	12.1
	Separated	2	1.9
	Widowed	2	1.9
	Divorced	1	0.9
Education	Completed Primary Education	6	5.6
n=107	Completed Secondary Education	56	52.4
	Completed Post Leaving Certificate Education	45	42
Occupation	At work	73	68.3
n=107	Un-employed (looking for a job)	9	8.4
	Student full-time	2	1.9
	Retired	12	11.2
	Other	11	10.2

4.2.3 Age Profile of Participants in the 3 Centres

Table 3 presents the age profile of the participants in the Men on the Move Activity Programme in the 3 Centres. The Men on the Move Activity Programme targeted men over 35 years of age. Overall, two thirds of the men (n=80) were in the 35-44 years and 45-54 age groups. Both the Claremorris and Westport Centres had a higher proportion of men in these younger age categories (Claremorris 35-54 years: 33 men; .Westport 35-54 years: 30 men) compared to Ballina 35-54 years: 17 men.

Table 3: Age Profile of Men by Centres

Total	35-44 years	45-54 years	55-64 years	65-74 years	Total
	n	n	n	n	n
Ballina	5	12	13	3	33
Claremorris	23	10	5	0	38
Westport	13	17	5	1	36
Total	41	39	23	4	107

4.2.4 Risk Factor Profile of Men on the Move Participants - Objective Risk Factor Measurements

(A) Blood Glucose

The rationale for measuring blood glucose levels in this study was to raise awareness of the link between obesity and diabetes. For the majority of healthy individuals, a normal blood sugar level is approximately 4 mmol/L. Blood glucose levels were measured at the information evenings in the 3 towns at the launch of the Men on the Move Activity Programme. The screenings consisted of a one to one conversation with the Nurse at the information evenings. Men who had elevated levels of blood glucose were advised to present to their Doctor immediately for a fasting glucose test. Table 4 presents information on non-fasting blood glucose levels of the men at the 3 information evenings. The results will not be interpreted in this study as a result of the screening protocols.

Table 4: Blood Glucose

Table : Glucose non-fasting	%	n
<4.0mmol/l	3.4	2
4.1-6.0mmol/l	53.4	31
6.1-7.0mmol/l	27.6	16
7.1-8.0mmol/l	5.2	3
8.1-10.0mmol/l	5.2	3
10.1-12.0mmol/l	3.4	2
>12mmol/l	1.7	1

(B) Blood Pressure

For this report blood pressure was categorised using the European Society of Cardiology (ESC) 2007 *Guidelines for Cardiovascular Disease Prevention*. Normal is categorised as < 140mmHg systolic blood pressure (SBP) and <90mmHg diastolic blood pressure (DBP). High is categorised as \geq 140mmHg SBP and \geq 90mmHg DBP. A prevalence of high blood pressure was observed in the Men on the Move participants. Overall, over 75% of the men had blood pressure above normal- \geq 140/90mmol/L. Two thirds of the men (76%) had high SBP (>140mm/Hg) and over one third of the men (36%) had high DBP (>90mm/Hg) as shown in Figures 2 and 3. The mean SBD was 148mmHg, SD (14.643) and the range was identified as 69. The mean DBP was 88mmHg, SD (11.041) and the range was identified as 60.

Figure 2: Systolic Blood Pressure

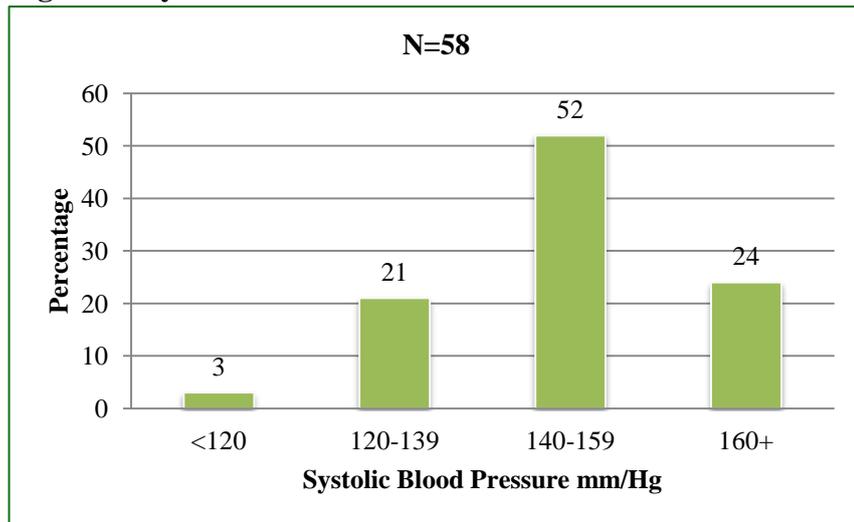
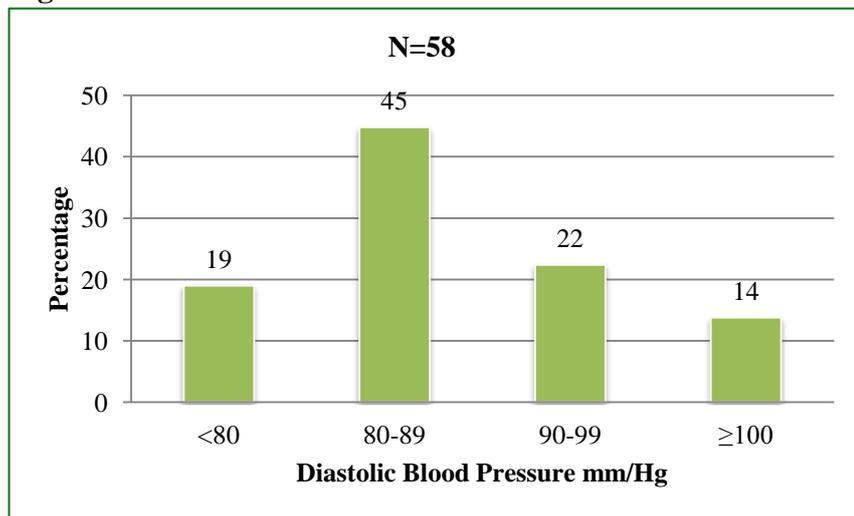


Figure 3: Diastolic Blood Pressure



(C) Anthropometry (Body Measurement)

Body measurements are presented in Table 5, including weight, height, and waist circumference. The men were screened at the information evenings in each of the Centres before the start of the Programme.

Body Mass Index (BMI)

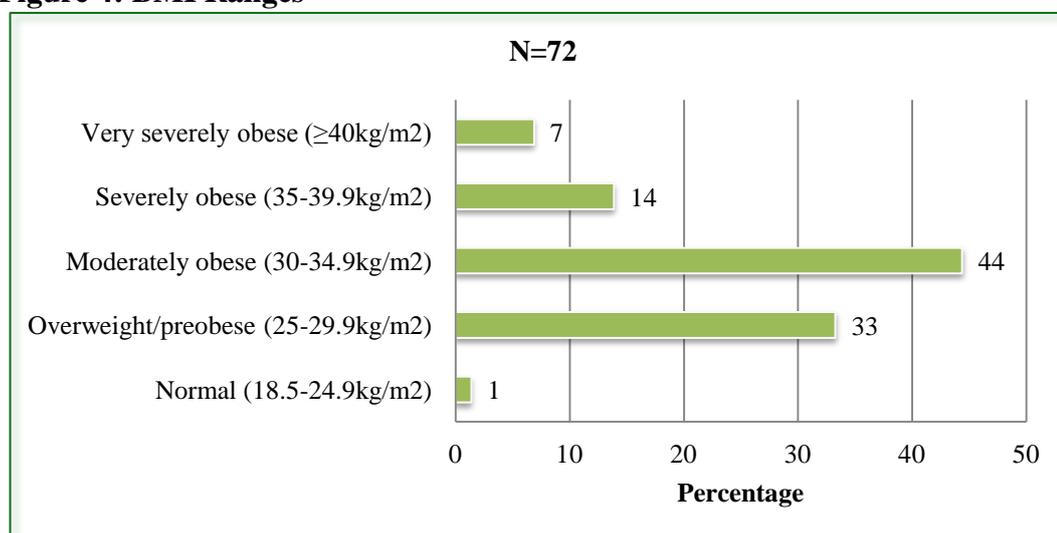
The definition of obesity is based on body mass index (BMI), a measure of weight that is corrected for height that is strongly correlated with body fat. Attendees at the information evenings were invited to avail of screening where height and weight were measured. These measurements were used to calculate BMI scores. The scores were then categorised according to the following classifications presented in Table 5.

Table 5: BMI Classifications

Classification	BMI	Risk of co-morbidities
Underweight	<18.50	Low (but risk of other clinical problems increased)
Normal range	18.50-24.99	Average
Overweight	≥25.00	
Preobese	25-29.99	Increased
Obese class 1	30-34.99	Moderate
Obese class 11	35-39.99	Severe
Obese class 111	≥40.00	Very severe

(Jennings, *et al.*, 2009)

Overall, nearly two thirds of the men (65%) were in the obese categories (moderately obese: 44%; severely obese: 14%; very severely obese: 7%). and one third of the men (33%) were in the overweight/preobese category. In addition only 1% of the men were in the normal category (see Figure 4). The mean value for BMI was 31.8, SD (4.53) and the range was identified as 19.5.

Figure 4: BMI Ranges

Waist Circumference

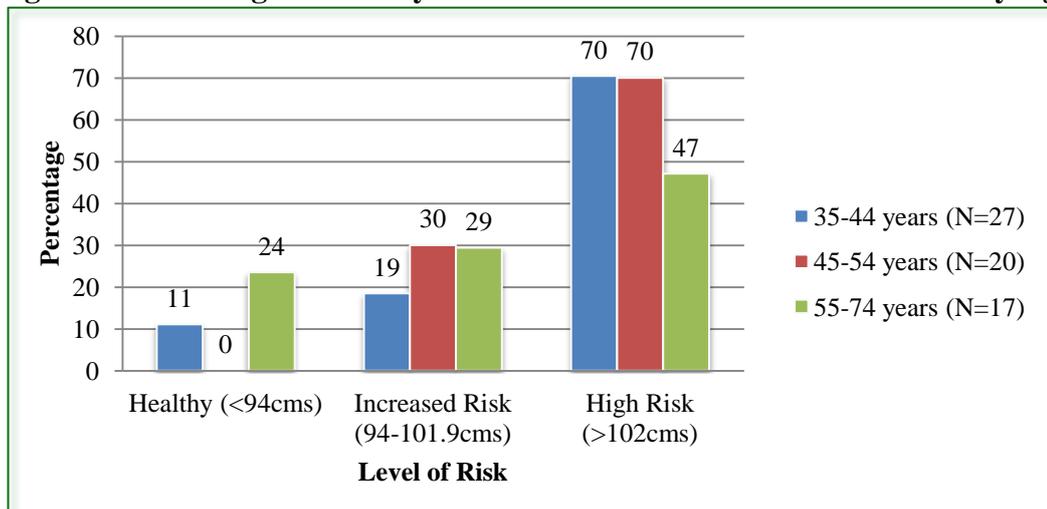
Body fat distribution is recognised as an important indicator of disease risk. A high waist circumference or a greater level of abdominal fat is associated with an increased risk for type 2 diabetes, high cholesterol, high blood pressure and heart disease. The cut-off points were established based of the following criteria (The National Guidelines on Physical Activity for Ireland, 2009):

- **Healthy:** Men less than 94 cms/37 inches
- **Increased risk:** Men 94 – 101.9 cms/37–40 inches
- **High risk:** Men greater than 102 cm/40 inches

Overall, the majority of the men (87.8%) were shown to have some degree of health risk with over 18% having increased risk and over two thirds of the men (68.9%) were in the high risk category. Figure 5 presents the results with regard to level of risk for waist circumference and age groups. Less than quarter of the men (24%) in the higher age group ‘55-74 years’ were in the healthy waist circumference category compared to 11% of men in the lower ‘35-44 years’ age group.

An increased risk was also prevalent in the upper age groups (45-54 years: 30%; 55-74years: 29%) compared to the lower age group (35-44 years: 19%). However a reverse was seen in this trend in the high risk category, with fewer men in the higher age group (47%) measuring into this category compared to the lower age groups (35-44 years: 70%; 45-54 years: 70%). The mean value for waist circumference was 107.76, SD (11.4) and the range was identified as 57.

Figure 5: Percentage of Men by Level of Risk for Waist Circumference by Age Groups



D. Fitness Tests

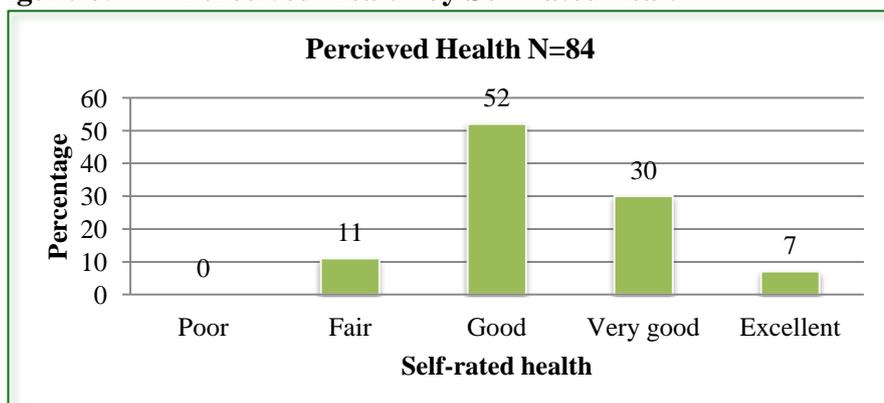
An endurance 1 mile fitness test was performed at the start of Programme. The purpose of performing the tests was to provide baseline information on fitness levels and to examine levels of fitness throughout the Programme. The men were asked to walk or run or a combination of both as fast as they could. Individual times were recorded. The median time is identified as 652 seconds (10 minutes and 52 seconds), the interquartile range is Q3-Q1 (835.50-560.00=275.50) and the range is (831).

4.2.5 Health Profile of Men on the Move Participants – Subjective Health Measures

A. Health Status

The men were asked to rate their health on a 5-point scale ranging from ‘excellent’ to ‘poor’. Overall, the majority of the men (82%) reported having ‘good’ and ‘very good’ health and 7% reported having ‘excellent’ health. 11% of the men reported that their health was ‘fair’ (see Figure 6).

Figure 6: Perceived Health by Self-rated health



A standard Census question was used to assess long-term illness. Over 25% of the men (N=100) reported having a long-term illness or severe illness diagnosed by a Doctor and less than 10% of the men reported that their activities were limited by a long-term illness, health problem or disability (N=106). The men reported a number of long-term/severe illnesses. The most frequently reported illnesses were asthma; 9; back pain: 8; depression: 8 and diabetes: 7 (see Table 6).

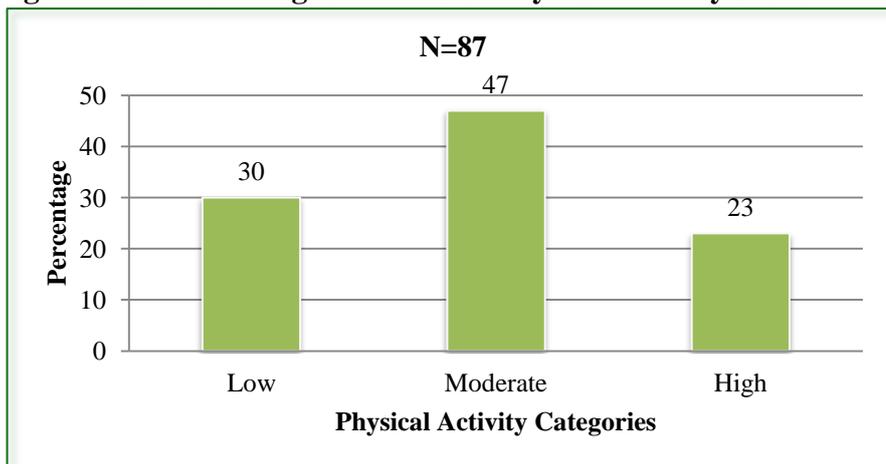
Table 6: Long-term illness

Total (N=106)	Long-term illness
Asthma	9
Heart	3
Arthritis	2
Osteoarthritis	2
Back Pain	8
Diabetes	7
Cancer	2
Incontinence	1
Anxiety	5
Depression	8
Blood Pressure	3
Stress	1
Cholesterol	1
Hemochromatosis	1
Others	2
Total	55

B. Physical Activity Profile International Physical Activity Questionnaire (IPAQ)

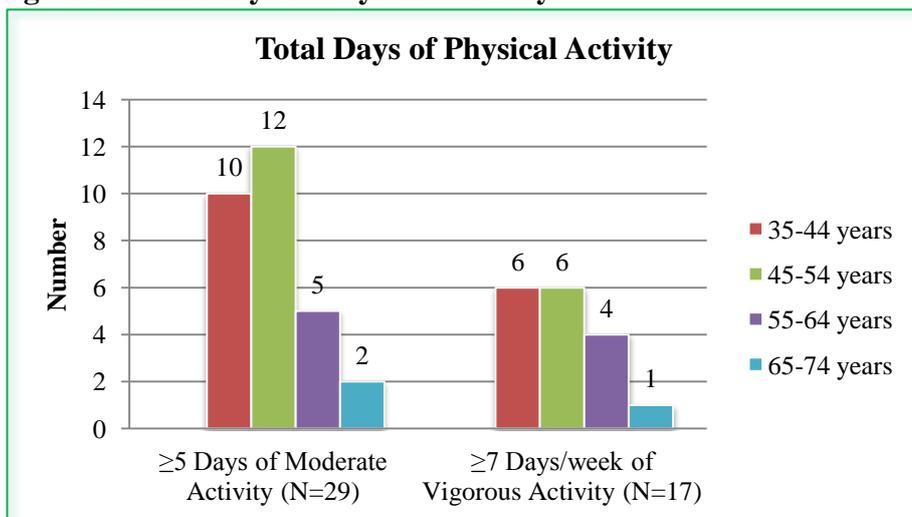
The men were asked a series of questions relating to the time they spent being physically active. The responses were used to calculate a physical activity score for each participant in the Programme based on the International Physical Activity Questionnaire (IPAQ). These scores were categorised as high, moderate or low. The categories were based on standard IPAQ scoring criteria. Individuals who are categorised as ‘high’ or ‘moderate’ meet the minimum physical activity guidelines: 30 minutes of at least moderate-intensity activity on 5 days a week as outlined in the National Guidelines on Physical Activity for Ireland (2009). Individuals categorised as low do not meet the ‘moderate’ or ‘high’ criteria. Overall, in this study the men in the ‘moderate’ group (47%) achieved these guidelines and nearly one third of the men (30%) in the ‘low’ category did not achieve the recommended level of physical activity for this category. Less than one quarter of the men (23%) achieved the guidelines for the ‘high’ activity category (see Figure 7).

Figure 7: Start of Programme Total Physical Activity Scores



The total number of days per week, the men participated in physical activity was also assessed in this study. Two categories were created: (1) ≥ 5 Days/week of at least 30 minutes of moderate intensity activity and/or walking and achieving a minimum of 600 MET-minutes/week; (2) ≥ 7 Days /week achieving a minimum of 3000 MET-minutes/week. Overall, 29 of the men met the criteria for undertaking moderate intensity physical activity on at least 5 days a week and 17 men met the criteria for vigorous/high activity on at least 7 days a week. A pattern was observed in higher levels of activity in younger men, reducing with increasing age in the participants in both categories (see Figure 8).

Figure 8: Total Days of Physical Activity



The men were also asked how happy they were with their physical activity level before they joined the Men on the Move Activity Programme. The majority of the men (84%) reported they they were dissatisfied with their level of physical activity (N=104) and 13% of the men reported satisfaction with their level of physical activity. Of those who were not regularly active, the main reason reported was: interested but not willing to spend time: 43. Other reasons reported were: no time: 16; injury, disability, medical condition: 10. In the additional comment section 9 men reported lack of motivation and 7 men reported family and work committments as the main reason for not being physically active before the Programme (see Table 7).

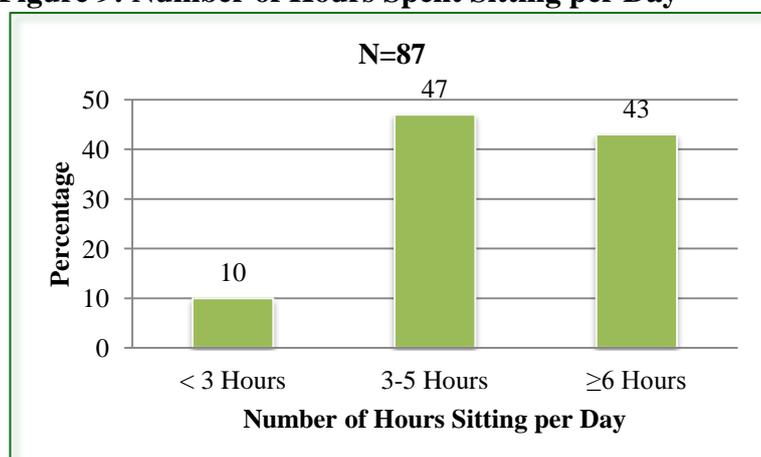
Table 7: Main Reasons for Physical Inactivity

Main Reasons not Physically Active before Men on the Move Programme	n
N=104	
Sufficiently active	9
Not interested	4
No facilities	7
Interested but not willing to spend time	43
Injury, disability, medical condition	10
No time	16
Other Reasons	
N=26	
Family/work commitments	7
Lazy	3
Lack of motivation	9
Fear of injury (team sport)	1
Do more in a group	3
Others	3

The men were also asked two open-ended questions about what motivated them to come on the Programme and to name the three most important things they hoped to achieve from the Men on the Move Activity Programme. The main themes emerging from both questions in order of frequency were: to improve fitness; to lose weight; to have better health; to socialise and meet new friends; to be more active; to increase energy levels and feel better and to have a group to exercise with.

Almost all of the men (93%) expressed an interest in attending health information workshops (healthy eating and weight management: 66%; lowering your health risk: 66%; maintaining lifestyle change: 59%; reducing the risk factors; stress management and relaxation:46%; smokers cessation support: 8%).

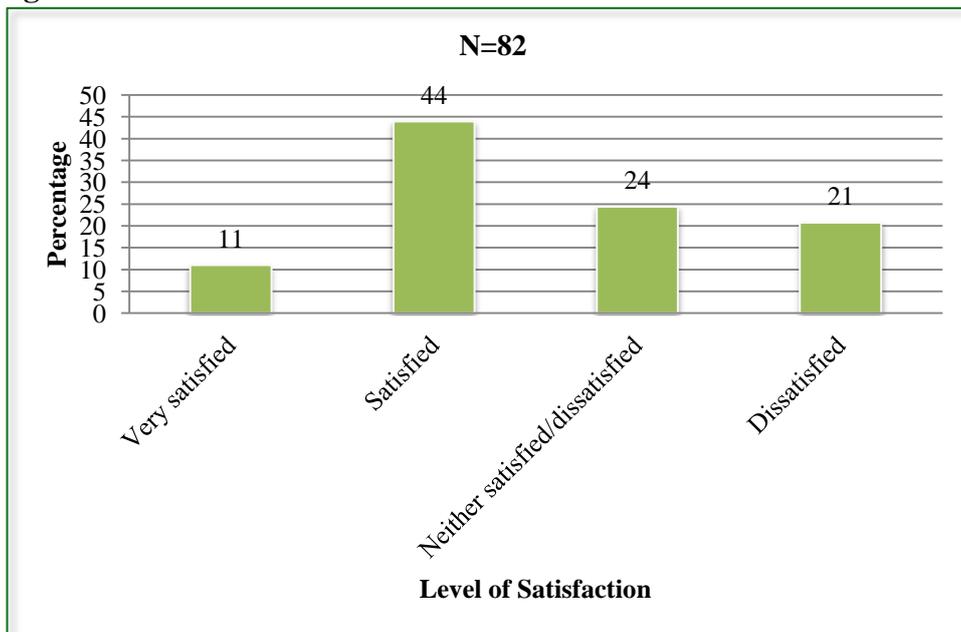
The IPAQ sitting question was included in the questionnaire. It is an additional indicator of time spent in sedentary activity. There is no guideline provided in this study for an accepted threshold for sitting. Overall, 47% of the men spent '3-5 hours' sitting and 43% spent over '6 or more hours' a day sitting. Only 10% of the men spent less than '3 hours' a day sitting (see Figure 9).

Figure 9: Number of Hours Spent Sitting per Day

C. Mental Health and Well-being

It is increasingly recognised that a healthy diet, regular physical activity and participation in group-based activities can have a positive effect on quality of life and symptoms of anxiety and depression. In this study the men were asked a series of questions on distinct components of mental health and well-being. The questions were based on the following health status measures: mental health; emotional health; social functioning and vitality. These questions were based on measures used in the SLÁN Survey 2007. The majority of men reported that they were satisfied with their health (satisfied: 44%; very satisfied: 11%). However, nearly one quarter of the men (24%) reported that they were neither satisfied nor dissatisfied with their health and over one fifth of the men (21%) reported that they were dissatisfied with their health (see Figure 10).

Figure 10: Satisfaction with Health



Overall, approximately 17% of the men reported that their daily activities were limited by anxiety, stress or depression (moderately: 13.3%; quite a lot: 3.6%), and 27.7% of the men reported that they were limited ‘slightly’ by anxiety, stress or depression. 11% of the men reported that they experienced limitations in work and daily activities as a result of personal or emotional problems (somewhat: 7.3%; quite a lot: 3.7%). In addition, 12% of the men also experienced social functioning limitations due to personal and emotional problems (somewhat: 7.2%; quite a lot: 4.8%). The majority of men (64.6%) were not happy with their energy levels (see Table 8).

Table 8: Mental Health and Well-being

Mental Health and Well-being		Start of Programme
N=83		%
Daily activities limited by anxiety, stress or depression	Not at all	55.4
	Slightly	27.7
	Moderately	13.3
	Quite a lot	3.6
Personal or emotional problems limit work or daily activities	Not at all	63.4
	Very little	25.6
	Somewhat	7.3
	Quite a lot	3.7
Personal or emotional problems limit social activities	Not at all	63.9
	Very little	24.1
	Somewhat	7.2
	Quite a lot	4.8
Happy with energy levels	Yes	35.4
	No	64.6

D. Lifestyle Health Behaviours

Smoking

The men were asked a number of questions about smoking and their stage of change/readiness to quit smoking. Overall, 13% of the men reported that they were smokers (N=106). One third of the smokers (33%) smoked between 1-5 cigarettes and a similar percentage of smokers (33%) smoked between 6-10 cigarettes a day. 20% of the men smoked between 11-15 cigarettes a day and 7% of men smoked more than 20 cigarettes a day (see Table 9).

Table 9: Number of Cigarettes Smoked per Day

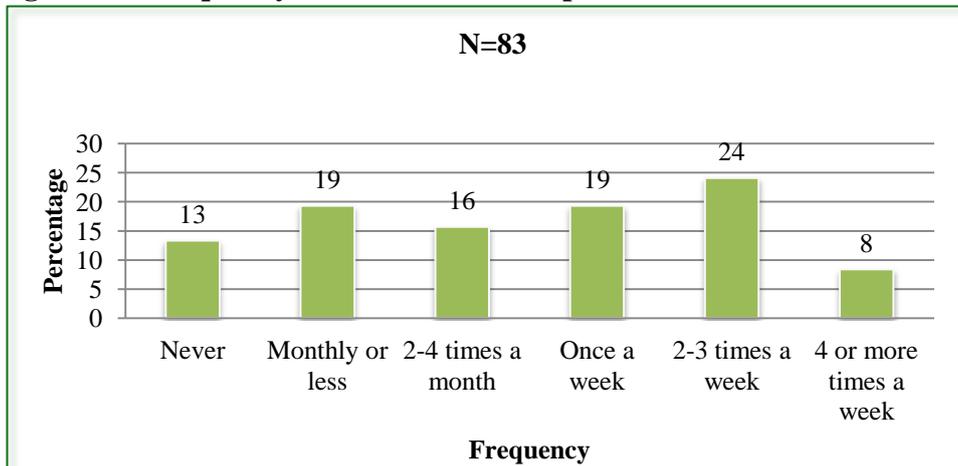
Number of Cigarettes Smoked	%	n
N=15		
1-5	33	5
6-10	33	5
11-15	20	3
>20	7	1
Pipe or cigars	7	1

The men were also asked about their stage of change regarding current intentions to quit smoking. Over one third of the men (5) reported that they were thinking of quitting. 2 men had made plans to quit and 7 men had tried to quit but had not succeeded.

Alcohol Consumption

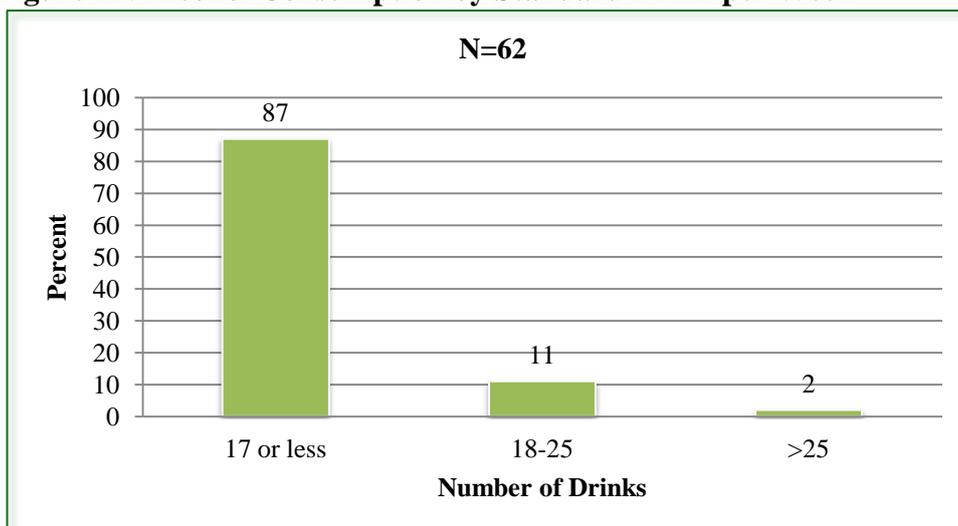
The men were asked a number of questions relating to alcohol. Overall, the majority of men (87%) reported they were drunk alcohol. Approximately one third of the men (32%) reported that they consumed alcohol 2-3 times a week or more (2-3 times/week: 24%; ≥ 4 times a week: 8%). 35% of the men reported that they consumed alcohol 2-4 times a month or less (2-4 times/month: 16%; monthly or less: 19%). (See Figure 11).

Figure 11: Frequency of Alcohol Consumption



The Department of Health recommends that men consume no more than 17 standard drinks (units of alcohol) weekly. Overall, 87% of the men complied with the recommended range for men. 13% of men reported they consumed in excess of the healthy weekly limit for alcohol consumption (see Figure 12). The median value for the number of standard drinks consumed is identified as 6.50, the interquartile range is Q3-Q1 (12.00-2.00=10.00) and the range is (29). However, a lower response rate for consumption of alcohol was observed with 45 men not reporting their consumptions levels.

Figure 12: Alcohol Consumption by Standard Drink per Week



Diet and Nutrition

Irish healthy eating guidelines encourage people to eat a variety of foods based on the new 'Food Pyramid', launched in June 2012 with revised guidelines. Dietary management is a fundamental element in maintaining a healthy weight and reducing risk factors for high blood pressure, high cholesterol, heart disease, type 2 diabetes cancer and other chronic diseases. In order to assess dietary behaviour, the men were asked questions on the following areas relating to their dietary behaviour: levels of consumption of fruit and vegetables; oily fish and red meat. In addition questions were asked about cooking and eating habits (see Table 10). The men were also asked a question related to weight management. Overall, the majority of men (87.7%) reported that they were actively trying to manage their weight (N=81).

Fruit and Vegetables

The Food Pyramid recommends that at least 5 servings of fruit and vegetables are consumed on a daily basis. Fruit and vegetables provide fibre as well being an important source of vitamins and minerals. Overall, the majority of the men (93.7%) did not meet the recommended guidelines for daily fruit and vegetable consumption. 16% of the men reported daily consumption levels of '3-4 portions' per day. However, only 6.2% of men reported that they consumed 'at least 5 or more portions' of fruit and vegetables a day.

Oily Fish and Red Meat

Oily Fish

Oily fish is a valuable source of protein, vitamins and minerals. It is important in maintaining heart health and reducing risk factors for heart disease. The Food Pyramid recommends consumption of fish twice a week and oily fish (salmon, mackerel, and sardines) at least once a week. Overall the majority of men (72.3%) meet this recommendation. Over one quarter of the men (27.7%) reported that they never consume oily fish.

Red Meat

Red meat is a good source of nutrients including protein, iron and zinc. However over or under consumption may have a negative impact on nutritional health. Processed meat has been linked to a higher risk of bowel cancer (World Cancer Research Fund (WCRF) 2012). The WCRF recommends a limit of 500g red meat (cooked weight) per week. Overall, over 44% of the men reported eating red meat up to three times a week (2-3 times/week: 24.1%; once a week: 20.5%). The majority of the men (54.2%) reported that they consumed red meat 4 or more times a week.

Eating and Cooking Habits

Fried Food

When food is fried it becomes more calorific because the food absorbs the fat of the oils. The food pyramid recommends using fats, spreads and oils sparingly (Food Safety Authority, 2012). The evidence demonstrates that eating lots of fat laden food can lead to weight gain and obesity. The men in this study were asked how often they consumed fried food. Overall, over 40% of the men reported that consumed fried food 'twice a week or more'. 46.3% of the men only consumed fried food 'once a week' and approximately 13% of the men 'never' consume fried food.

Use of Salt

The Food Pyramid recommends adding as little as possible or no salt to food while cooking. Over one third of the men (36.1%) reported that they ‘always’ or ‘usually’ add salt to food while cooking (always: 12%; usually: 24.1%). 20.5% of the men ‘sometimes’ add salt while cooking and over 43% reported they ‘rarely’ or ‘never’ use salt while cooking.

Table 10: Daily Consumption of Food and Eating Habits

Consumption of Food and Eating Habits		%
Daily Fruit and Vegetables Consumption n=81	1 portion	29.6
	2-3 portions	48.1
	3-4 portions	16
	≥5 portions	6.2
Oily Fish N=83	Never	27.7
	Once a week	53
	Twice a week	15.7
	More than twice a week	3.6
Red Meat N=83	Daily	3.6
	4-6 times a week	50.6
	2-3 times a week	24.1
	Once a week	20.5
	Never	1.2
Fried Food N=82	Daily	1.2
	4-6 times a week	2.4
	2-3 times a week	36.6
	Once a week	46.3
	Never	13.4
Use of salt while cooking N=83	Always	12
	Usually	24.1
	Sometimes	20.5
	Rarely	26.5
	Never	16.9

4.3 Section 2 Quantitative and Qualitative Results - Changes in Risk Factors and Health Profile of the Men on the Move Participants between Start of Programme, End of Phase 1, End of Programme and 6 Months follow-up

4.3.1 Introduction

In this section the quantitative results of changes between the start of Programme, end of Phase 1, end of Programme and 6 month follow-up are presented. The rationale for collecting data between the different stages in the Programme was to capture the changes achieved at different stages in the Programme and also due to the fact that a number of the participants did not continue to complete the second phase of the Programme.

4.3.2 Quantitative Results

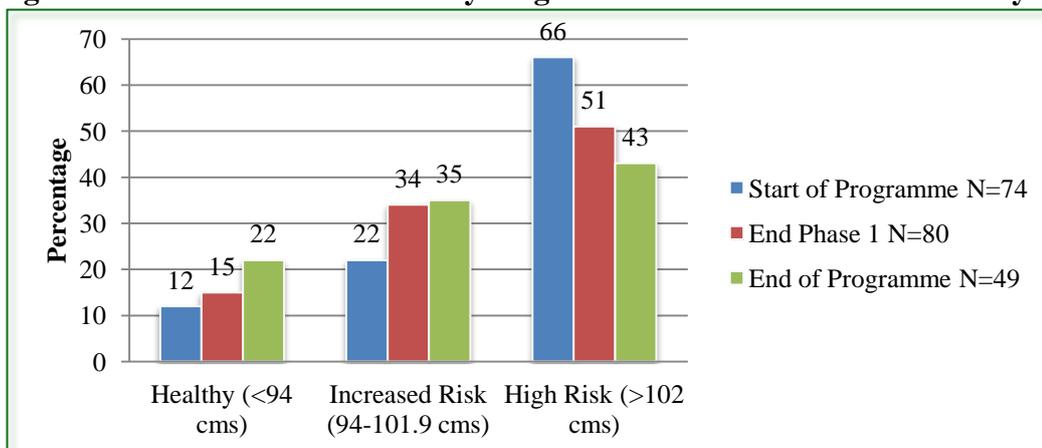
Risk Factor Profile of Men on the Move Participants - Objective Risk Factors Measurements

A. Anthropometry (Body Measurement)

Waist Circumference

Waist circumference was measured at start of the Programme, end of Phase 1 and end of Programme. The cut-off point established high risk for men’s waist circumference (high risk: greater than 102 cms/40 inches) identified that 66% of the men at the start of Programme were in the high risk category for cardiovascular disease (CVD) risk factors. At the end of Phase 1 improvements were seen in waist measurements with a reduction of the percentage of men in this category (51%). This pattern of improvement was also evident at the end of the Programme with 43% of the men in the high risk category. In the increased risk category for waist circumference in men (94-101.9 cms/37-40 inches) this study identified that over 22% of men were at increased risk of CVD at the start of Programme. Increases were observed at the end of Phase 1 (34%) and the end of the Programme (35%). A possible explanation for this pattern is due to the decreases in the high risk category. The healthy waist circumference range for men is less than 94 cms (37 inches). Overall, just over one tenth of the men (12%) were in the healthy range for waist circumference at the start of Programme. At end of Phase 1, the percentage of men in the healthy range had increased to 15%. Further improvements in waist circumference were also evident by the end of the Programme with over 22% of men measuring in the healthy range compared to 12% at the start of the Programme (see Figure 13).

Figure 13: Waist Circumference by Stages in the Men on the Move Activity Programme



BMI

The men were invited to attend further screenings at the end of Phase 1 and the end of the Programme. BMI levels were measured independently at all stages. Overall, reductions were seen in the obese categories from 65.2% at the start of Programme to 45% at the end of the Programme. The percentage of men in the overweight/preobese category increased from 33.3% at the start of Programme to 46.9% at the end of the Programme. This finding is consistent with decreases shown in the obese categories, resulting in men moving into a lower risk category, similar to the findings demonstrated in waist circumference results. Further improvements were also seen in the normal category with an increase in the percentage of men (8.2%) in this category at the end of the Programme compared to the start of Programme (1.4%). (See Table 11)

Table 11: BMI Ranges and risk of co-morbidities at Start of Programme, End of Phase 1 and End of Programme

BMI Ranges	Classification	Risk of co-morbidities	Start of Programme	End of Phase 1	End of Programme
			N=72 %	N=84 %	N=49 %
<18.50KG/m ²	Underweight	Low (risk of other clinical problems increased)	0	0	0
18.5-24.9kg/m ²	Normal	Average	1.4	4.8	8.2
25-29.9kg/m ²	Overweight/ Preobese	Increased	33.3	38.1	46.9
30-34.9kg/m ²	Obese class 1	Moderate	44.4	40.5	32.7
35-39.9kg/m ²	Obese class 2	Severe	13.9	14.3	8.2
≥40kg/m ²	Obese class 3	Very severe	6.9	2.4	4.1

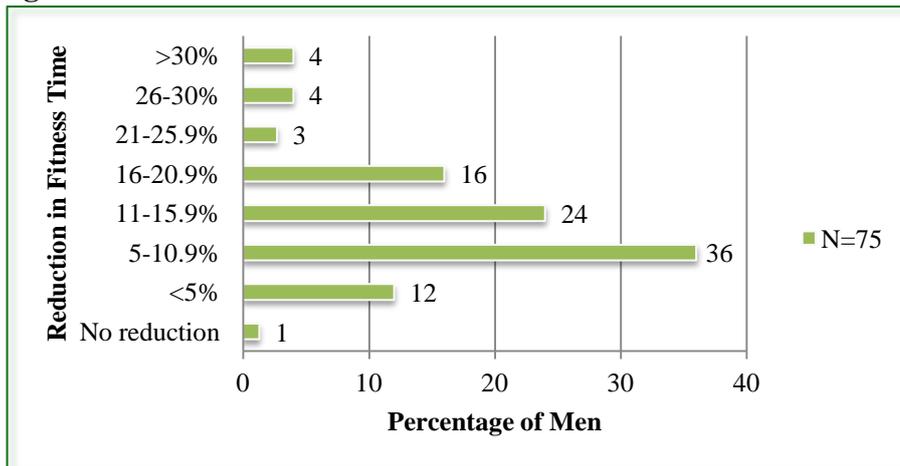
B. Fitness Levels

An endurance 1 mile fitness test was performed at the start of Programme and the end of Phase 1 and end of Programme in order to monitor changes in fitness levels throughout the Programme.

Start of Programme and End of Phase 1

Overall the majority of the men (99%) achieved reductions in their fitness tests times between start of Programme and the end of Phase 1. Over 76% of the men achieved reductions in time in the following categories: 5-10.9%: 36%; 11-15.9%: 24%; 16-20.9%: 16%. 11% of the men reduced their time at the end of Phase 1 by at least 21% or more. Less than one fifth of the men (12%) had a reduction in time of less than 5% and 1% of the men did not achieve any reduction in fitness test time at the end of Phase 1 (see Figure 14a).

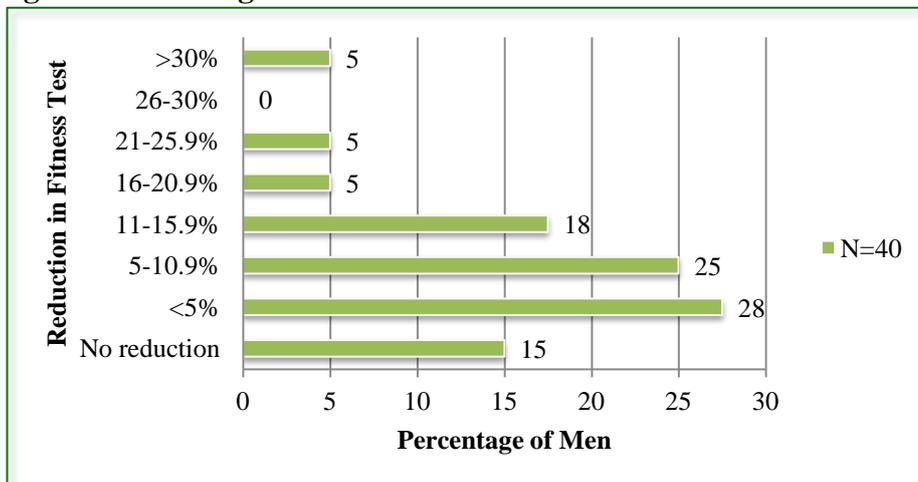
Figure 14a: Reduction in Fitness Test Times between the Start of Programme and End of Phase 1



End of Phase 1 and End of Programme

Variations in patterns in fitness time reductions were observed between the different stages in the Programme. Overall the majority of the men (85%) achieved a reduction in their fitness time at this stage. However the percentage of men not achieving change between Phase 1 and end of Programme increased to 15%. In addition the percentage of men achieving reductions in time of ‘<5%’ also increased to 28%. Decreases were also observed in the categories: ‘5% to 20.9%’, with less than half of the men (48%) achieving reductions in these categories compared to 76% of men in the first Phase of the Programme. In the higher category of time reduction ‘≥21%’ a similar pattern was observed, in keeping with the End of Phase 1 with 10 % of the men achieving reductions of at least 21% or greater (see Figure 14b).

Figure 14b: Changes in Fitness Times between End of Phase 1 and End of Programme

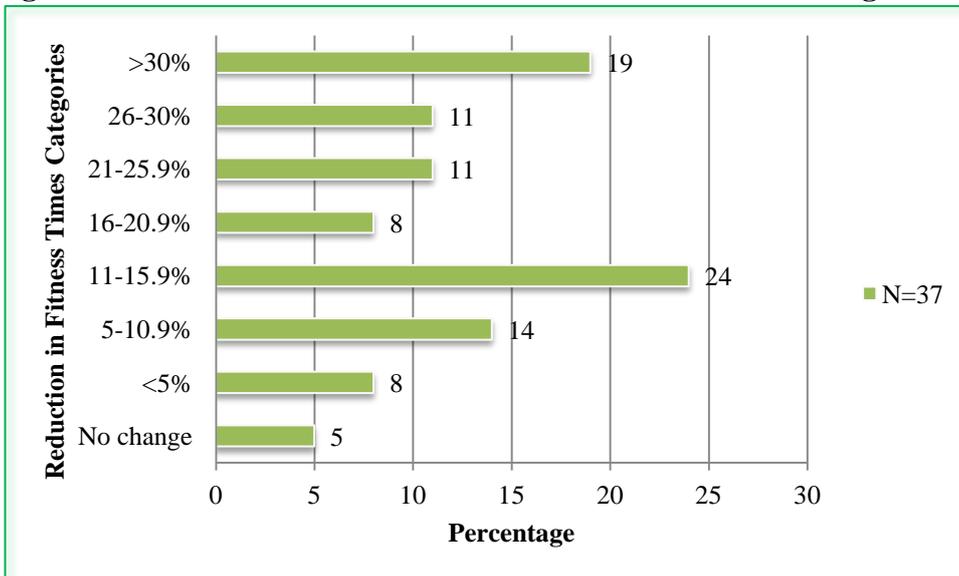


Start of Programme and End of Programme

Figure 15 presents overall changes in fitness test times between the start of Programme and the end of the Programme. Overall, a similar pattern was observed where 46% of the men achieved reductions in time in the categories: ‘5% to 20.9%’. However improvements were observed in the higher categories of time reduction ‘21%-30%’ with 22% of men achieving time reductions in these categories between the start of Programme and end of Programme and 19% of men also improving their time by over 30%. In addition, 8% of the men achieved a reduction in their fitness time of ‘< 5%’ and 5% of the men experienced ‘no reduction’ in fitness time.

The medium end of Programme fitness time was identified as 573 seconds (9.33 minutes), the interquartile range is Q3-Q1 (747.75-488.25=259.5) and the range is (512) compared to the median start of Programme time which was identified as 652 seconds (10.52 minutes), the interquartile range was Q3-Q1 (835.50-560.00=275.50) and the range was (831).

Figure 15: Reduction in Fitness Test Time between Start of Programme and End of Programme

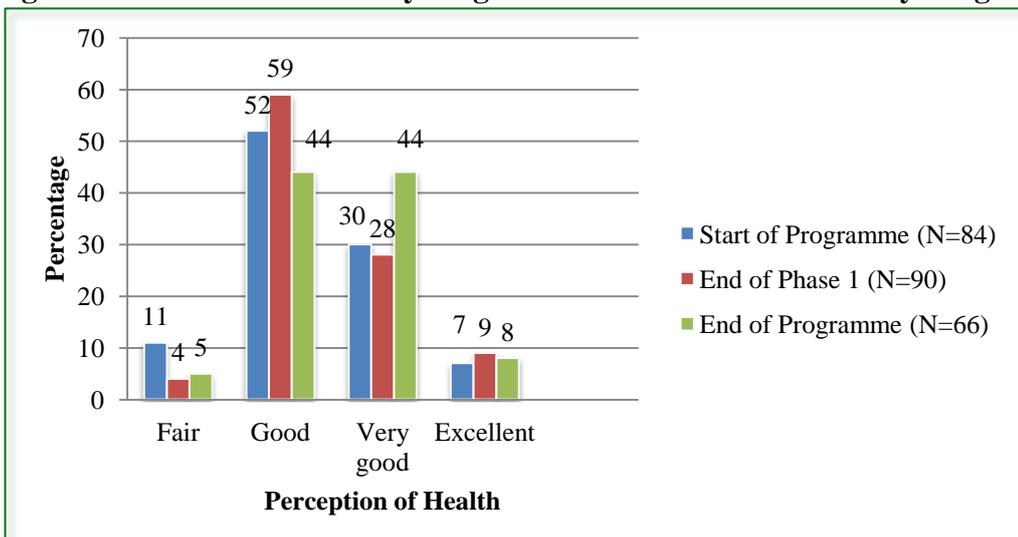


Health Profile of Men on the Move Participants - Subjective Health Measures

A. Health Status

The men were asked to rate their health on a 5 point scale ranging from excellent to poor at the start of the Programme, the end of Phase 1 and the end of the Programme. Overall, improvements were observed in perceived health. 52% of the men rated their health as being either ‘excellent’ (8%) or ‘very good’ (44%) at the end of the Programme compared to 37% at the End of Phase 1 and at the start of the Programme. Some improvements were also observed in the ‘fair’ health status category between the start of the Programme and the end of the programme, where less men (11%) compared to 5% at the end of the Programme (see Figure 16).

Figure 16: Perceived Health by Stages in Men on the Move Activity Programme



B. Physical Activity

Physical activity levels were measured according to the International Physical Activity Questionnaire (IPAQ) protocols at 4 stages in the Programme: start of Programme, end of Phase 1, end of Programme and 6 months follow-up in order to assess changes in physical activity levels and maintenance of physical activity behaviour changes achieved on the Programme at 6 months follow-up. Figure 17 presents physical activity scores (low active, moderate and high active) for the 4 stages in the Programme.

Low Active

Overall, significant decreases were seen in IPAQ scores in the 'low' active category between the start of Programme and the end of the Programme. 30% of the men at the start of Programme did not meet the minimum physical activity criteria for 'moderate' or 'high' active defined by IPAQ, compared to 18% at the end of the Programme. A pattern of decrease was also observed at 6 months follow-up with only 4% of the men not meeting the recommended guidelines.

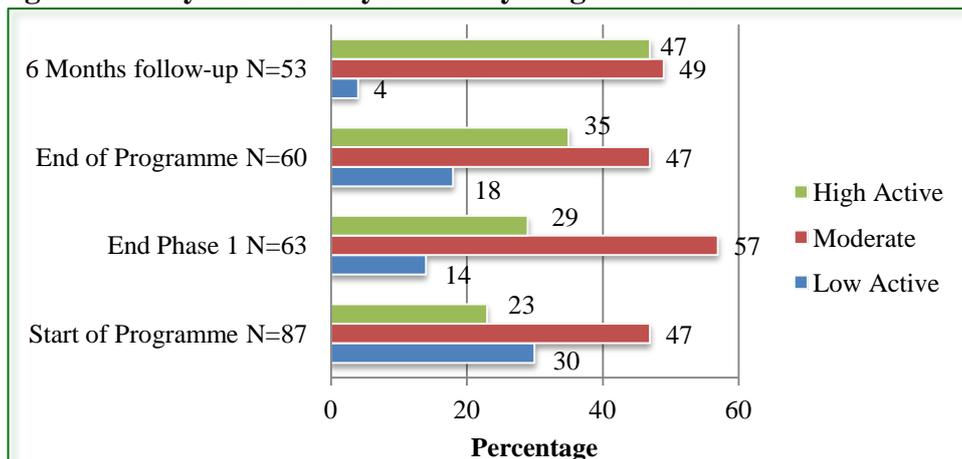
Moderate

The 'moderate' activity category is defined as: 3 or more days of vigorous-intensity activity of at least 30 minutes/day or 5 or more days of moderate-intensity activity and/or walking for at least 30 minutes/day or 5 or more days of any combination of above activities achieving a minimum of total physical activity of 600 MET-minutes/week. Overall, 47% of the men met the requirements for 'moderate' activity at the start of the Programme. Increases were observed in this category at the end of Phase 1 with 57% of the men achieving the requirement for 'moderate' activity. However a decrease was observed at the end of the Programme in this category with 47% of the men achieving the minimum requirements similar. Physical activity scores were maintained at 6 months follow-up, with 49% of men achieving minimum 'moderate' guidelines.

High Active

The 'high' active category is classified as vigorous-intensity activity on at least 3 days achieving a minimum total physical activity of at least 1500 MET-minutes/week or 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum total physical activity of at least 3000 MET-minutes/week. Overall, a pattern of increase was observed in the 'high' active category at the end of Phase 1, end of Programme and 6 months follow-up. At the end of the Phase 1, 29% of the men achieved the minimum requirement and this pattern of increase was observed at the end of the Programme with 35% of the men achieving the minimum requirements compared to 23% of the men at the start of Programme. Further increases were observed at 6 months follow-up with 47% of men achieving the 'high' active requirements.

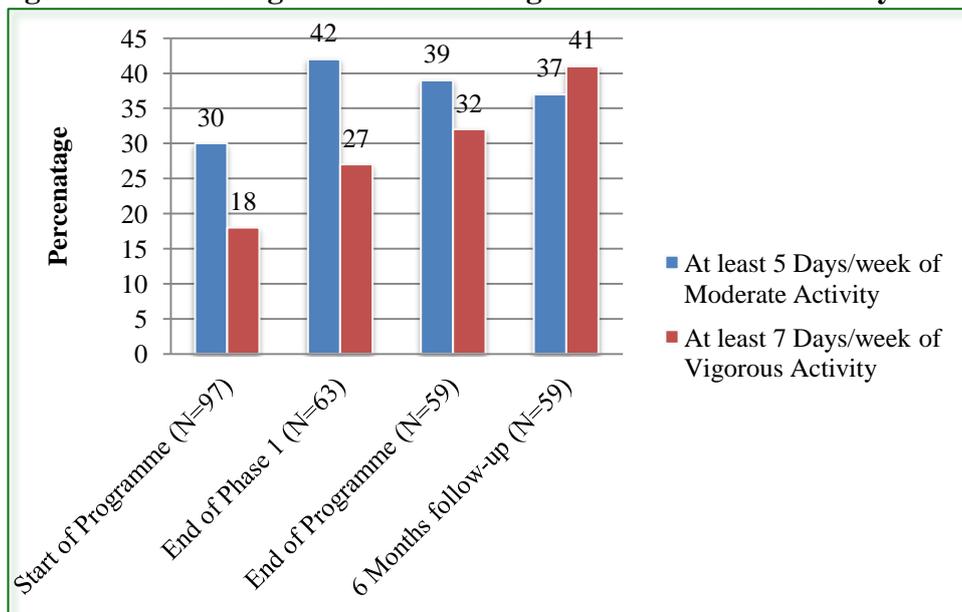
Figure 17: Physical Activity Scores by Stages in the Men on the Move Activity Programme



Total Days of Activity

Figure 18 presents analysis of physical activity levels for men who participated in physical activity on at least five days and at least seven days a week. The criteria for five days are that a minimum of 600 MET-minutes/weeks is achieved and the criterion for seven days is a minimum of 3000 MET-minutes/week. Overall, an increase was observed for physical activity on at least 5 days/week between the start of Programme and the end of the Phase 1 (start of Programme: 30%; end of Phase 1: 42%). A decrease was observed between the end of Phase 1 and the end of the Programme (end of Phase 1: 42%; end of Programme: 39%). Follow-up at 6 months demonstrated that levels of physical activity were nearly maintained with just a 2% decrease in the percentage of men (37%), meeting criteria for at least 5 days/week. A pattern of increase was observed across all stages of the Men on the Move Activity Programme for physical activity on at least 7 days (start of Programme: 18%; end of Phase 1: 27%; end of Programme: 32%; 6 months follow-up: 41%).

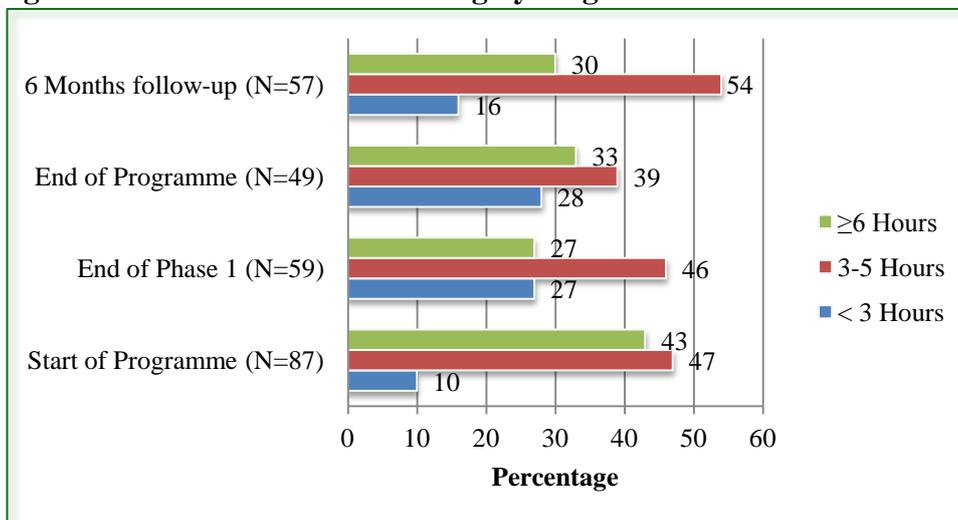
Figure 18: Percentage of Men achieving criteria for at least 5 Days/week and at least 7 Days/week



Sedentary Behaviour

The IPAQ question on sitting was asked at the 4 stages in the Men on the Move Activity Programme. The question provides additional information on time spent in sedentary activity. Overall, a decrease was seen in sedentary activity in the '≥6 hours' category between the start of Programme and the end of the Programme (start of Programme: 43%: end of Phase 1: 27%: end of Programme: 33%). This pattern of decrease in the men reporting sedentary behaviour was maintained at 6 months follow-up (30%). In addition, decreases were observed in the '3-5 hours' category between the start of Programme and end of Programme (start of Programme: 47%: end of Programme: 39%). However, this change was not maintained at 6 months follow-up where 54% of men reported sedentary activity of '3-5 hours' per weekday compared to 47% at the start of Programme. In the '<3 hours' category increases were observed between the start of Programme and 6 months follow-up (start of Programme: 10%; 6 months follow-up: 16%). Higher levels of reporting were observed for '<3 hours' of sedentary behaviour at the end of Phase 1 and the end of the Programme (end of Phase 1: 27%: end of Programme: 28%) but these were not maintained at 6 months follow-up. (Figure 19)

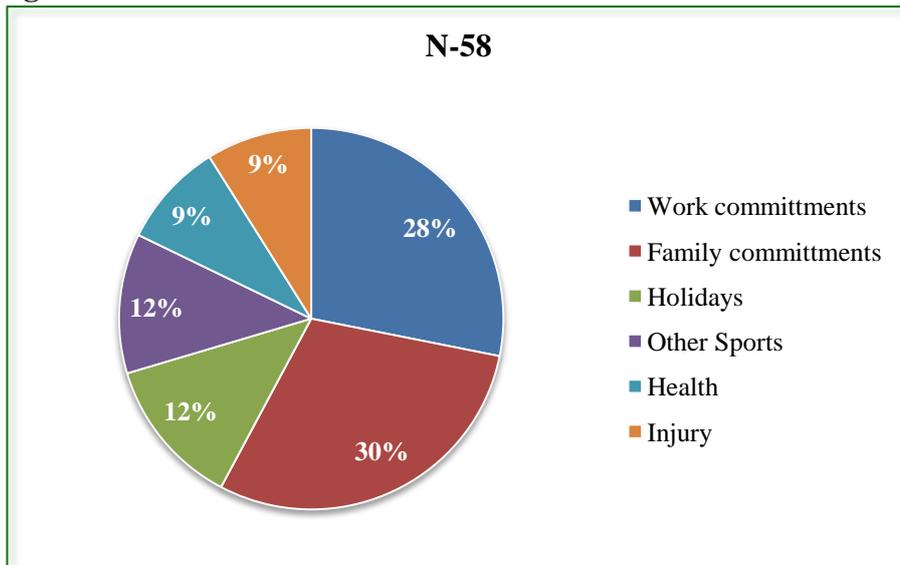
Figure 19: Number of Hours Sitting by Stages in Men on the Move Activity Programme



Sessions Attended

The men were asked to report the number of sessions they attended at the end of Phase 1 and at the end of the Programme. The median number of sessions attended in Phase 1 of the Programme was identified as 14.00, the interquartile range is Q3-Q1 (14.00-10.00=4.00) and the range is (14) and medium number of sessions attended in the second Phase of the Programme was identified as 12.00, the interquartile range is Q3-Q1= (14.00-7.50=6.50) and the range is 16. The men were asked at the end of the Programme what the main reasons were for non-attendance at the sessions. Work and family commitments were listed as the main reasons for not being able to attend the sessions (see Figure 20).

Figure 20: Reasons for non-attendance at sessions



Open-ended Questions

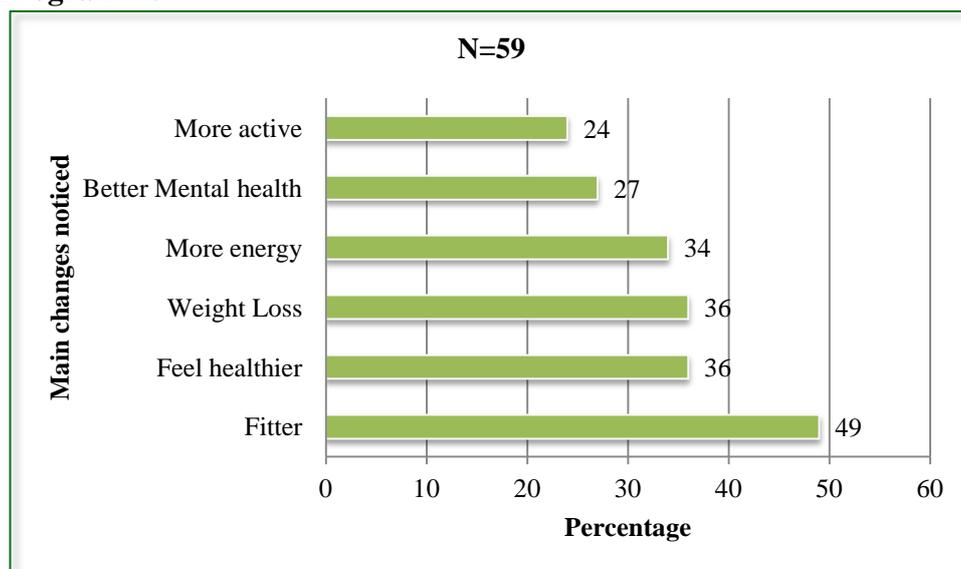
At the end of the Programme the men were asked a series of questions about the physical activity and lifestyle changes they made on the Programme and about the main changes they noticed in themselves as a result of the Programme. All of the men reported that they would continue with changes they made on the Programme (N=58). The majority of men (98.5%) were interested in a follow-up programme (N=66) and over 90% of men would be willing to contribute to the cost (N=64). The men reported that they would be willing to pay either €3.00 or €5.00 towards the cost of the sessions (N=55).

The men also identified key components of the Programme that were particularly important to them. The main themes emerging were:

- Having a group to exercise with from the following perspectives: social; group as a motivating factor; exercising with a group at one's own level; companionship; encouragement and the enjoyment and fun element.
- An Instructor led training programme with a structured programme to follow and personal goals; advice on training; incorporating other forms of exercise e.g. exercise to music, building up from walking to running.
- Awareness of the importance of exercising and increasing fitness levels to improve physical and mental health and achieve weight loss.

The men prioritised the main changes they noticed in themselves as a result of the Programme. 49% of the men reported that they felt fitter. Weight loss and feeling healthier was listed by 36% of the men. 34% of men reported changes in their energy levels. And 27% of the men commented on improved mental health. Finally 24% of the men reported that their activity levels had increased (see Figure 21).

Figure 21: Main Changes noticed in participants as a result of the Men on the Move Activity Programme

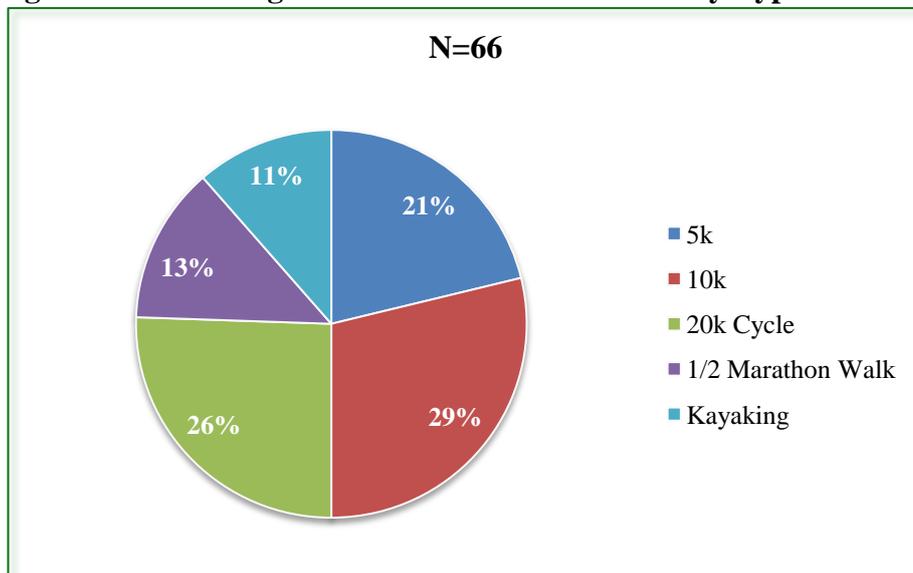


The men were also asked what changes they would like to make to the Programme (N=71). A number of men suggested that there should be more diversity in the Programme (n=18), a range of activities were recommended: cycling; gym work; swimming; hill-walking; aerobics; boot camps; walking. Over 42% of the men reported that the Programme should continue, and that they would not make any changes to it (n=30). Ten men commented on the structure and content of the Programme, suggesting that there should be more sessions, including the addition of morning sessions. A number of men felt that the duration of the Programme should be extended. In addition email contact was suggested as a means of communicating with the men and more forward planning was also suggested. The final recommendations were in relation to Health Education. Five men suggested that there should be nutritional advice, information on healthy eating, weight management and stress management.

The men were asked what type of support they needed to help them remain physically active (N=66). The majority of the men (76%) highlighted the importance of the ‘group’ and the ‘Men on the Move Activity Programme’ as key motivators for remaining active. Group activities with a Leader and the setting of goals were suggested by the men as an important factor in remaining physically active. In addition having positive encouragement from family and others and a belief in one’s self was also stressed by five men as important to help them remain physically active. Part of the strategy to maximise participation on the Men on the Move Activity Programme consisted of offering the men a target to work towards at the end of the first Phase of the Programme (week 9). A 5k non-competitive event was organised in Lough Lannagh, Castlebar and participants in the three Men on the Move Centres were invited to walk, run or jog with their families and friends. Over 86% reported that they participated in the event (N=58). The majority of men rated the event highly (n=33). The men also reported on the importance of having ‘a goal to work towards’, ‘the sense of achievement after the event’ and that ‘the distance was realistic’ (n=8). A number of men (n=6) commented on the social aspect of the event and how it was ‘enjoyable with everyone helping each other out on the night’ and that it was ‘good to meet other groups in the same situation as ourselves’ and ‘we all had a great evening’. The men also praised the organisers for the level of organisation and marshalling of the event and the choice of such a lovely setting (n=11). Two of the participants did not rate the event highly and a small number of the participants commented that the event was ‘tough’, that ‘the groups did not mix’ and that ‘they thought some of the people were athletes rather than men trying to get fit’ (n=3).

Finally, the men were asked what type of events they would like to see being organized in a future Programme. The three most popular events were a 10k event, 20k cycle and 5k event (10k: 29%: 20k cycle: 26%: 5k: 21%). 13% of the men reported that they would be interested in participating in half marathon walk and 11% were interested in kayaking (see Figure 22).

Figure 22: Percentage of Men interested in Events by Type of Event



C. Mental Health and Well-being

Table 12 presents the results of a series of questions the men were asked on mental health and well-being at the start of Programme, end of Phase 1 and the end of the Programme. 16.9% of the men reported that their daily activities were limited by anxiety, stress or depression ‘moderately’ or ‘quite a lot’ at the start of the Programme. By end of Phase 1 this figure increased to 19.1%. However by the end of the Programme a decrease was observed where 15.2% of the men reported that their activities were ‘moderately’ or ‘quite a lot’ limited by anxiety, stress or depression. A slight increase was observed in the following category; where over 31% of the men reported being ‘slightly’ affected by anxiety, stress or depression at the end of the Programme compared to 27.7% at the start of the Programme.

Similar patterns were observed with a slight decrease in the percentage of men reporting at the end of the Phase 1 and the end Programme that their daily activities were limited by personal or emotional problems. 10 % of the men reported that they were ‘somewhat’ or ‘quite a lot’ limited by personal or emotional problems at the end of the Programme compared to 12% at the start of the Programme. In addition, over two thirds of the men (68.7%) reported ‘not at all’ when asked if personal or emotional problems limited their social activities compared to 63.9% at the start of the Programme. Significantly higher scores were observed throughout the Programme when men were asked about vitality. Only 35.4% of the men reported being happy with energy levels at the start of the End of Phase 1 compared to 55.1% at the end of Phase 1. Further increases were also seen at the end of the Programme with over two thirds of the men (68.2%) reporting being happy with their energy levels and over 75% of the men reported they were happy with energy levels 6 months follow-up.

Table 12: Mental Health and Well-being by Stages in the Men on the Move Activity Programme

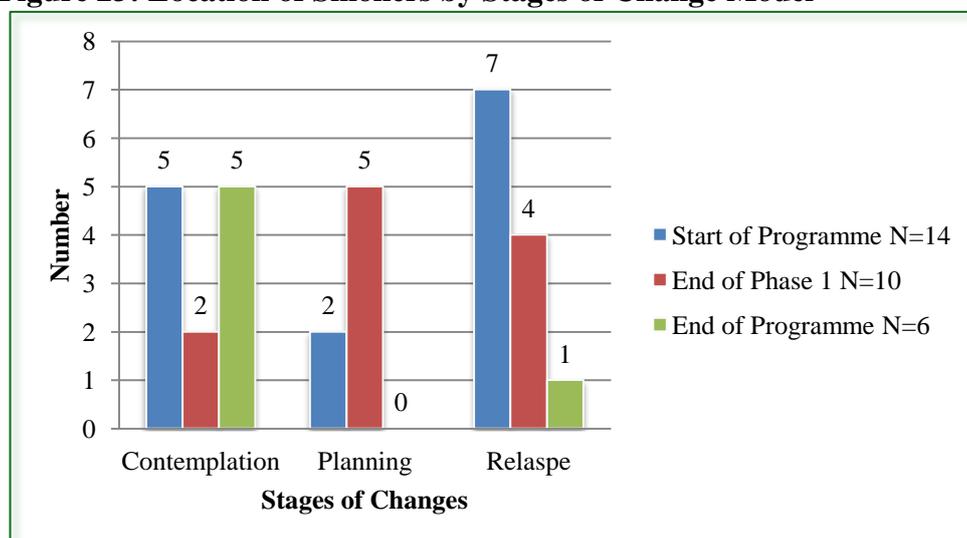
Mental Health and Well-being		Start of Programme	End of Phase1	End of Programme	6 Months follow-up
		%	%	%	%
		N=83	N=89	N=67	N=53
Daily activities limited by anxiety, stress or depression	Not at all	55.4	44.9	53	
	Slightly	27.7	36	31.8	
	Moderately/Quite a lot	16.9	19.1	15.2	
Personal or emotional problems limit work or daily activities	Not at all	63.4	58.4	63.6	
	Very little	25.6	31.5	25.8	
	Somewhat/Quite a lot	11	10.1	10.6	
Personal or emotional problems limit social activities	Not at all	63.9	64	68.7	
	Very little	24.1	29.2	20.9	
	Somewhat/Quite a lot	12	6.7	10.5	
Happy with energy levels	Yes	35.4	55.1	68.2	75.5
	No	64.6	44.9	31.8	24.5

D. Lifestyle Health Behaviour

Smoking

Overall, of the men at the end of the Programme, 6 men reported that they were smokers (N=67) compared to 14 men at the start of the Programme (N=106). The majority of the smokers (5) at the end of the Programme were contemplating quitting smoking compared to less than half (5) at the start of the Programme (see Figure 23).

Figure 23: Location of Smokers by Stages of Change Model



Alcohol Consumption

Overall, the majority of the men reported they drank alcohol at the end of Phase 1 (88%) and at the End of the Programme (89%). The recommendation for low risk alcohol consumption is 17 units per week for men. No major decreases in consumption of standard units were observed throughout the Programme. 87.1% of the men who reported consuming alcohol at the start of Programme consumed '17 units or less' per week compared to 86% at the end of the Programme. 12.9% of the men reported at the start of the Programme that they consumed more than the recommended number of units per week for men (18-25 units/week: 11.3%; >25 units/week: 1.6%). A slight increase was observed at the end of the Programme (14%). (See Table 13)

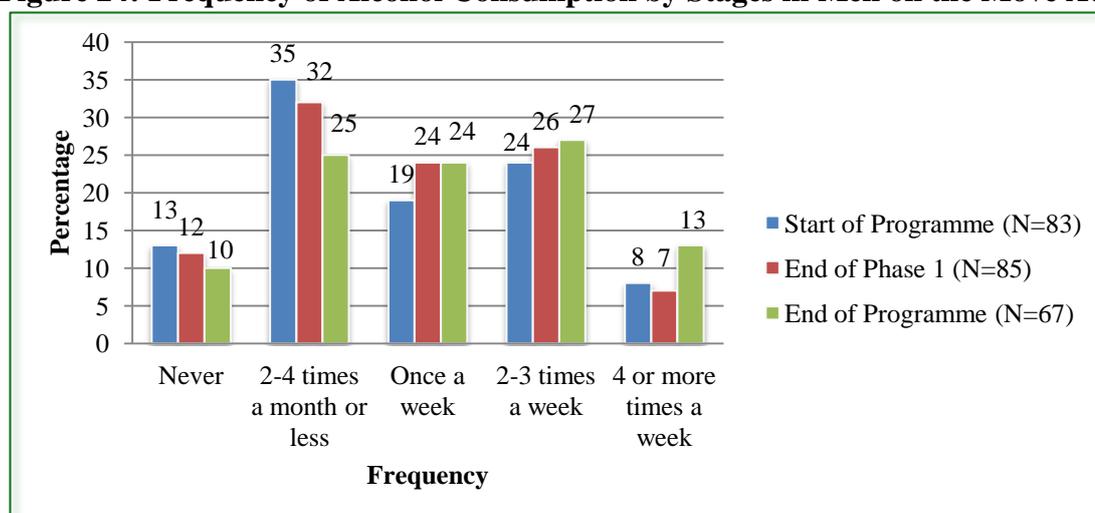
Table 13: Standard Drinks (Units) Consumed per Week

Standard Drinks(Units) Consumed per Week	Start of Programme N=62	End of Phase 1 N =67	End of Programme N=50
	%	%	%
17 or less	87.1	86.5	86
18-25	11.3	7.5	10
>25	1.6	6	4

A higher level of alcohol consumption was observed between start of Programme, end of Phase 1 and end of Programme. 10% of men reported that they 'never' drank alcohol at the end of the Programme compared to 13% at the start of the Programme. Lower levels for alcohol consumption '2-4 times a month or less' were reported at the end of the Programme (25%) compared to the start of the Programme (35%). However, increasing levels of weekly alcohol consumption were also observed within most of the categories: 'once a week' (start of Programme: 19%; end of Phase 1: 24%; end of Programme: 24%); '2-3 times a week' (start of Programme: 24%; end of Phase 1: 26%; end of Programme: 27%) and '4 times a week' (start of Programme: 8%; end of Phase 1: 7%; end of Programme: 13%). (See Figure 24)

The medium number of drinks consumed at the end of Programme was identified as 8.00, the interquartile range is Q3-Q1 (12.00-4.00=6.00), and the range is 49 compared to the medium number of drinks identified at the start of Programme: 6.50, the interquartile range is Q3-Q1 (12.00-2.00=8.00) and the range is 21.

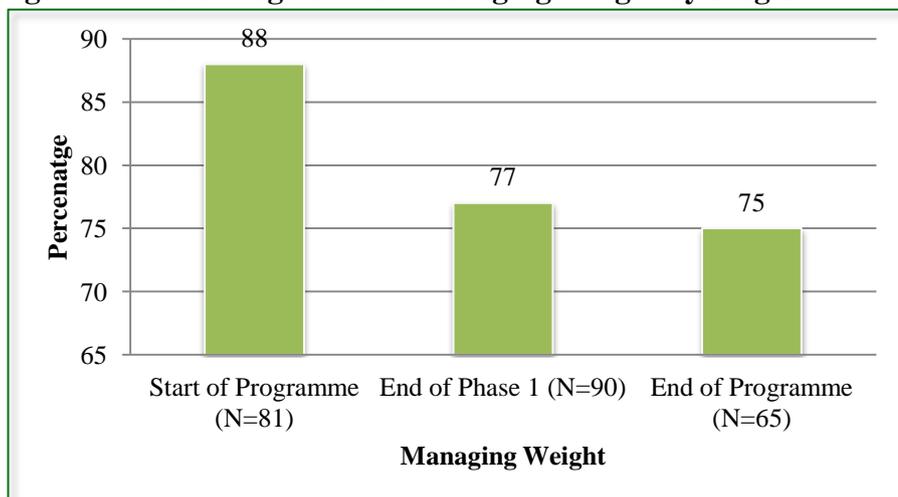
Figure 24: Frequency of Alcohol Consumption by Stages in Men on the Move Activity Programme



Weight, Diet and Nutrition

The men were asked if they were managing their weight at each stage in the Programme. A reduction was observed in the percentage of men (88%) managing their weight at the start of the Programme compared to the end of Phase 1 (77%) and the end of Programme (75%). (See Figure 25)

Figure 25: Percentage of Men Managing Weight by Stages in the Programme



Dietary Behaviour

Dietary behaviours were assessed at the start of Programme, end of Phase 1 and end of Programme. Table 14 outlines dietary behaviour and eating habits over the 3 Phases of the Programme.

Fruit and Vegetables

Overall, the majority of men still do not meet the recommended guidelines of 5 or more portions of fruit and vegetable (end of Phase 1: 94.4%; end of Programme: 94%).

Oily Fish

Overall the majority of men continued to meet the recommended guidelines for oily fish consumption throughout the Programme. Increases were observed in oily fish consumption levels at the end of Phase 1 and at the end of the Programme (end of Phase 1: 83.2%; end of Programme: 77.3%) compared to the start of the programme (72.3%).

Red Meat and Oily Fish

Red Meat

Overall an increase in the consumption of red meat was seen between the start of the Programme, the end of Phase 1 and the end of the Programme. The majority of men (60.6%) reported that they consumed red meat 'daily' or '4-6 times a week' at the end of the Programme compared to 54.2% at the start of the Programme. A similar pattern was observed with over one third of the men (37.8%) reporting that they consumed red meat only '3 times or less a week' at the end of the Programme compared to consumption levels at the start of the Programme and at the end of Phase 1 (start of Programme: 44.6%; end of Phase 1: 42.2%).

Eating and Cooking Habits

Fried Food

Overall a pattern of reduction in the consumption of fried food ‘twice a week or more’ was seen at the end of Phase 1 and at the end of the Programme (end of Phase 1: 36%; end of Programme: 26.1%) compared to the start of the Programme (40.2%). In addition over 61% of the men at the end of the programme reported that they only consumed fried food ‘once a week’ compared to 46.3% at the start of the Programme.

Use of Salt

Patterns of reduction were seen in the use of salt while cooking at the end of Phase 1 and at the end of the Programme. Overall 31.8% of the men reported that they ‘always’ or ‘usually’ add salt to their food while cooking compared to over 36% at the start of the Programme. In addition an improvement was also observed with over 48.5% of the men reporting at the end of the Programme that they ‘rarely’ or ‘never’ use salt while cooking compared to 43.4% at the start of the Programme.

Table 14: Consumption of Food and Eating Habits

Consumption of Food and Eating Habits		Start of Programme N=83	End of Phase 1 N=90	End of Programme N=66
		%	%	%
Daily Fruit and Vegetables Consumption	None	0	3.3	1.5
	1 portion	29.6	32.2	15.2
	2-3 portions	48.1	43.3	56.1
	3-4 portions	16	15.6	21.2
	≥5 portions	6.2	5.6	6.1
Oily Fish	Never	27.7	16.9	22.7
	Once a week	53	67.4	59.1
	Twice a week	15.7	12.4	18.2
	More than twice a week	3.6	3.4	0
Red Meat	Daily	3.6	1.1	1.5
	4-6 times a week	50.6	55.6	59.1
	2-3 times a week	24.1	22.2	13.6
	Once a week	20.5	20	24.2
	Never	1.2	1.1	1.5
Fried Food	Daily	1.2	1.1	0
	4-6 times a week	2.4	3.4	4.6
	2-3 times a week	36.6	31.5	21.5
	Once a week	46.3	52.8	61.5
	Never	13.4	11.2	12.3
Use of salt while cooking	Always	12	4.5	4.5
	Usually	24.1	30.7	27.3
	Sometimes	20.5	22.7	19.7
	Rarely	26.5	29.5	22.7
	Never	16.9	12.5	25.8

4.3.3 Quantitative Sub-group Results: Objective Risk Factor Measurements

This section provides the results based on a sub-group of men in the Men on the Move Activity Programme involving the participants who attended all 3 stages of the measured assessments (start of Programme, end of Phase 1 and end of Programme) in the Programme. This made it possible to execute more specific and stringent statistical tests on the data to test for statistical significance. The following measurements were examined in this section:

1. Health Screening Measurements (Anthropometry)
 - Waist circumference
 - Weight
 - BMI
2. Fitness Tests Results
 - 1 Mile Endurance Test Times

Health Screening Measurements

A. Waist

Waist circumference was measured at start of Programme, end of Phase 1 and end of Programme. Overall, the majority of the men (87.8%) in the main study were shown to have some degree of health risk with over 18% having increased risk and over two thirds of the men (68.9%) were in the high risk category. Table 15 presents the mean values of the sub-sample for different stages in the Programme: start of Programme, N=36 (Mean 105.76, SD - 12.217), end of Phase 1, N=36, (Mean 101.92, SD - 11.845), and end of Programme, (Mean 101.17, SD - 11.175). (See Table 15)

Table 15: Mean Waist Values by Stages in Men on the Move Activity Programme

Mean Waist Values (cms) by Stages in Men on the Move Activity Programme			
	Mean	Std. Deviation	N
Start of Programme Waist Measurement	105.69	12.217	36
End of Phase 1 Waist Measurement	101.92	11.845	36
End of Programme Waist Measurement	101.17	11.175	36

Table 16 presents comparisons of the mean differences in waist values (cms) of the sub-sample between different stages of the Programme. There was a significant reduction in mean waist circumference of 3.8 cms in the sub-sample between the start of Programme and the end of Phase 1, (Mean Difference 3.778, $\pm .566$, $p < 0.05$). A further reduction was observed between the end of Phase 1 and the end of the Programme, (Mean Difference .750, $\pm .470$, $p > 0.05$), this difference is not significant. However, the reduction of 4.5 cms between the start of Programme and end of Programme is significant, (Mean Difference 4.528, $\pm .736$, $p < 0.05$), (see Table 16 and Figure 25).

Abdominal obesity is strongly linked with cardiovascular risk with even just a 1 cm increase in waist circumference being associated with a 5% increase in risk of future CVD events including fatal and non-fatal CHD and stroke.

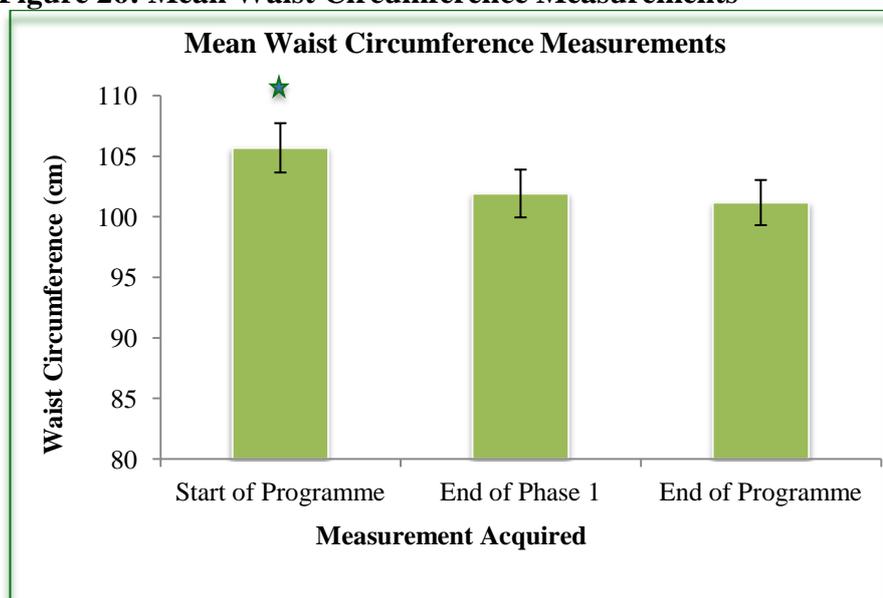
Table 16: Mean Difference in Waist Values (cms) by Stages in the Men on the Move Activity Programme

Mean Difference in Waist Values (cms) by Stages in the Men on the Move N=36						
Stages (I)		Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
Start of Programme	End of Phase 1	3.778*	.566	.000	2.354	5.202
	End of Programme	4.528*	.736	.000	2.676	6.379
End of Phase 1	Start of Programme	-3.778*	.566	.000	-5.202	-2.354
	End of Programme	.750	.470	.359	-.433	1.933
End of Programme	Start of Programme	-4.528*	.736	.000	-6.379	-2.676
	End of Phase 1	-.750	.470	.359	-1.933	.433

Based on estimated marginal means
 *. The mean difference is significant at the b. Adjustment for multiple comparisons: Bonferroni.
 * $p < 0.05$

The mean differences in waist circumference are indicated in Figure 26. The mean difference between the start of Programme and end of Phase is significant as is the mean difference between the start of the Programme and the end of Programme.

Figure 26: Mean Waist Circumference Measurements



Results are \pm Standard Error. $p < 0.05$ is indicated by ★

B. Weight

Overall the majority of men (87.7%) in the main study at the start of the Programme reported that they were actively trying to manage their weight (N=81). Table 17 presents the mean weight values (kgs) by stages in the Men on the Move Activity Programme. A decrease was observed between the start of Programme and end of the Programme in the sub-sample (N=37) in mean weight (kgs) measurements, start of Programme (Mean 93.241, SD - 14.8299) and end of Programme, (Mean 91.062, SD - 13.5741). (See Table17)

Table 17: Mean Weight Values (kgs) by Stages in Men on the Move Activity Programme

Mean Weight Values (kgs) by Stages in Men on the Move Activity Programme			
	Mean	Std. Deviation	N
Start of Programme Weight	93.241	14.8299	37
End Phase 1 Weight	93.359	18.8035	37
End of Programme Weight	91.062	13.5741	37

Table 18 presents the mean differences for weight (kgs) at different stages in the Programme. While a decrease was observed, between the start of Programme and the End of Programme, (Mean Difference 2.178, ± 1.003 , $p > 0.05$), the decrease is not significant.

Table 18: Mean Difference in Weight (kgs) by Stages in Men on the Move Activity Programme

Mean Difference in Weight (kgs) by Stages in Men on the Move Activity Programme N=37						
Stages (I)		Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
Start of Programme	End Phase 1	-.119	2.584	1.000	-6.607	6.369
	End of Programme	2.178	1.003	.110	-.341	4.697
End Phase1	Start of Programme	.119	2.584	1.000	-6.369	6.607
	End of Programme	2.297	2.463	1.000	-3.888	8.482
End of Programme	Start of Programme	-2.178	1.003	.110	-4.697	.341
	End of Phase 1	-2.297	2.463	1.000	-8.482	3.888

Based on estimated marginal means a. Adjustment for multiple comparisons: Bonferroni.

C. BMI

BMI was calculated using independently measured data at the start of Programme; end of Phase 1 and at the end of the Programme. In the main study approximately two thirds of the men were in the obese categories (moderately obese: 44%; severely obese: 14%; very severely obese: 7%). In addition one third of the men (33%) were in the overweight/preobese category. In the sub-sample BMI scores have decreased somewhat between the start of Programme, (Mean 30.801, SD - 4.8546) and end of Programme, (Mean 29.946, SD - 4.1734). (See Table 19)

Table 19: Mean BMI Scores by Stages in Men on the Move Activity Programme

Mean BMI by Stages in the Men on the Move Activity Programme			
	Mean	Std. Deviation	N
Start of Programme BMI Measurement	30.801	4.8546	37
End of Phase 1 BMI Measurement	29.811	3.8595	37
End of Programme BMI Measurement	29.946	4.1734	37

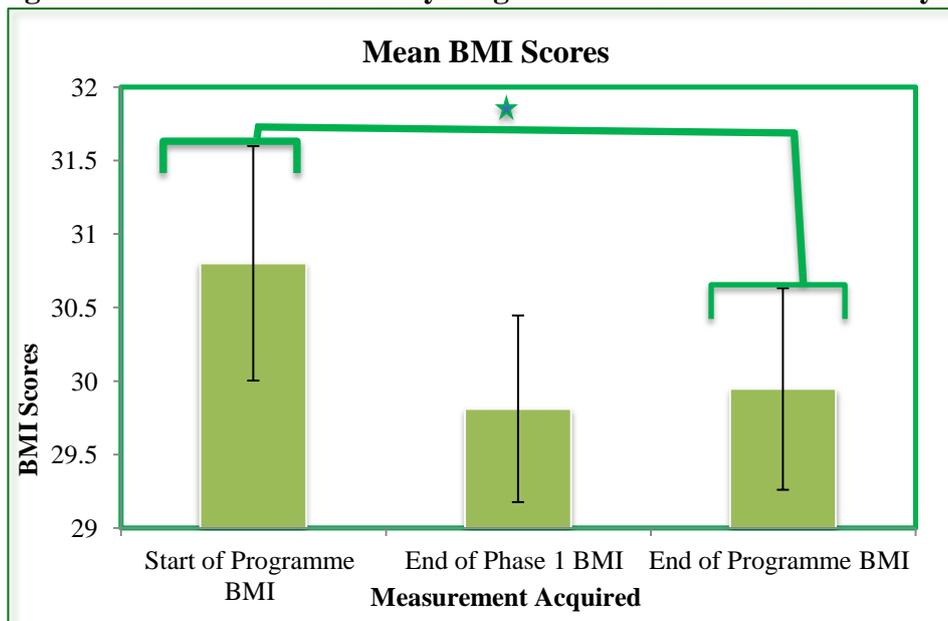
Mean difference for BMI values are presented in Table 20 and indicated in Figure 27. A significant decrease in BMI values was observed between the start of Programme and end of Programme. This decrease is significant, (Mean Difference .855, \pm .282, $p < 0.05$).

Table 20: Mean BMI Difference by Stages in the Men on the Move Activity Programme

Mean Difference in BMI by Stages in the Men on the Move Activity Programme N=37						
Stages (I)		Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
Start of Programme	End of Phase 1	.990	.454	.108	-.150	2.131
	End of Programme	.855*	.282	.013	.148	1.562
End of Phase 1	Start of Programme	-.990	.454	.108	-2.131	.150
	End of Programme	-.135	.403	1.000	-1.146	.876
End of Programme	Start of Programme	-.855*	.282	.013	-1.562	-.148
	End of Phase 1	.135	.403	1.000	-.876	1.146

Based on estimated marginal means
 *. The mean difference is significant at the b. Adjustment for multiple comparisons: Bonferroni. * $p < 0.05$

Figure 27: Mean BMI Values by Stages in Men on the Move Activity Programme



Results are \pm Standard Error. $p < 0.05$ is indicated by ★

D. Fitness Test Results

An endurance 1 mile fitness test was performed at the start of Programme, end of Phase 1 and end of Programme in order to monitor changes in fitness levels throughout the Programme. In the sub-sample 37 men participated in fitness tests at all 3 stages in the Programme. A pattern of reduction in mean test times values (seconds) was observed between the start of Programme, end of Phase 1 and end of Programme, start of Programme (Mean 739.78, SD - 181.449), end of Phase 1 (653.51, SD - 178.676), end of Programme (Mean 591.08, SD - 146.123). (See Table 21)

Table 21: Mean Fitness Test Times (seconds) by Stages in Men on the Move Activity Programme

Mean Fitness Times (seconds) by Stages in Men on the Move Activity Programme	Mean	Std. Deviation	N
Start of Programme Time	739.78	181.449	37
End Phase 1 Time	653.51	178.676	37
End of Programme Time	591.08	146.123	37

The mean difference in fitness times is presented in Table 22 and indicated in Figure 28. This pattern of reduction in fitness test times is significant between the start of Programme and end of Phase 1, (Mean Difference 86.270, ± 17.33 , $p < 0.05$) and between end of Phase 1 and end of Programme, (Mean Difference 62.432, ± 13.448 , $p < 0.05$).

Table 22: Mean Difference in Fitness Test Times (seconds) by Stages in Men on the Move Activity Programme

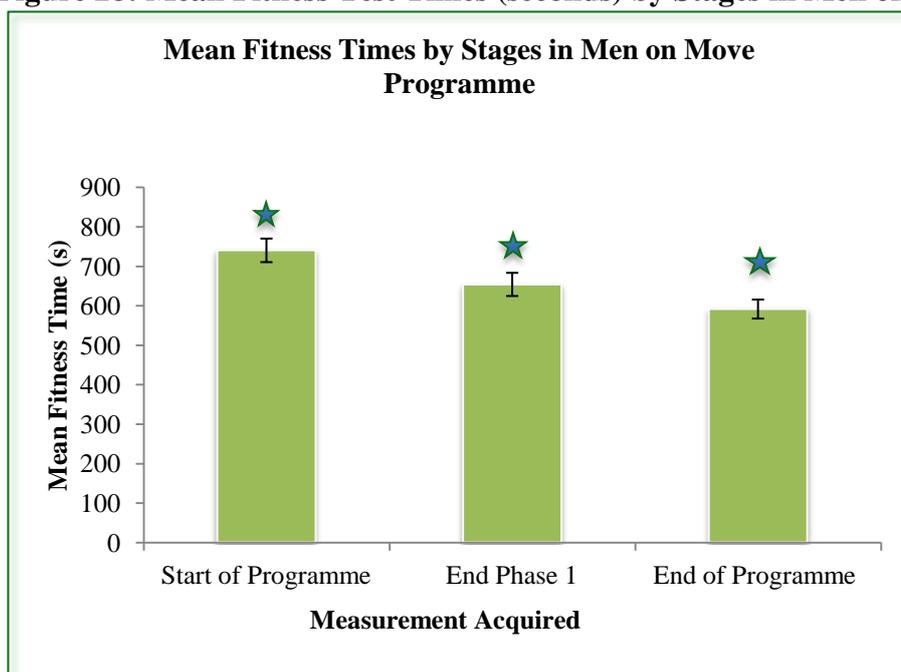
Difference in Fitness Test Times (seconds) by Stages in Men on the Move Activity Programme N=37						
Stages (I)		Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
Start of Programme	End of Phase 1	86.270*	17.330	.000	42.754	129.786
	End of Programme	148.703*	20.323	.000	97.670	199.735
End of Phase 1	Start of Programme	-86.270*	17.330	.000	-129.786	-42.754
	End of Programme	62.432*	13.448	.000	28.664	96.201
End of Programme	Start of Programme	-148.703*	20.323	.000	-199.735	-97.670
	End of Phase 1	-62.432*	13.448	.000	-96.201	-28.664

Based on estimated marginal means

*. The mean difference is significant at the b. Adjustment for multiple comparisons: Bonferroni.

* $p < 0.05$

Figure 28: Mean Fitness Test Times (seconds) by Stages in Men on the Move Activity Programme.



Results are \pm Standard Error. $p < 0.05$ is indicated by ★

4.3.4 Qualitative Results

The principle aim of this study is to investigate the impact of the Men on the Move Activity Programme. This section draws together the principal themes that emerged from the qualitative study which consisted of two interviews and three focus groups. It comprises of the following sub-sections:

- A. Purpose of Participation
- B. Overall Impact of the Programme
- C. Perception of the Programme, Design and Delivery
- D. Continuation of the Programme
- E. Final Comments

Interviews and Focus Groups

Two key participants were identified from the Centres by the Leaders and invited to share their personal experience of the Programme and a focus group was conducted in each of the Centres.

A. Purpose of Participation

Motivation and Goals

The men were asked questions about what motivated them to participate in the Men on the Move Activity Programme and if they had any goals in particular, that they wished to achieve. Both of the men interviewed expressed concern about their poor health. Prior to participating on the programme, one of the men recalls: *'I wouldn't say I was feeling well. When walking, legs were sore, breathing was bad (smoke a few cigars) and I generally would have gone home in the evening after work, sat on the sofa and fallen asleep. My wife motivated me to go too'*.

The second man interviewed also talked about his health (blood pressure, type II diabetes and overweight). At his last visit, while taking his bloods, the Practice Nurse told him that he was heading for a stroke or heart attack which certainly impacted on him. He had tried many different things to lose weight but nothing had worked. Improving mental health was an important motivating factor for another man: *'For me it was to feel better, that was my motivating factor...I didn't feel mentally well'*.

Age also seems to play an important role in getting men to be more reflective about their health (Richardson, 2004). Previous studies (Aoun *et al.*, 2002) have also noted that as men grow older they are likely to become more health-conscious. One of the men interviewed talked about death and aging: *'I had begun to reflect on my mortality before I heard of the Programme and was already thinking of what I could do. I was conscious of my age and that in another few years it would be too late'*. This concern about aging and fitness also emerged in the group with the recognition by one man of: *'the importance of staying fit and active as men age because otherwise you'll fall into lazy mode'*. The free health check was an incentive for some of the men to come to the information meeting. What shocked one of the men into participating was being told that he was: *'not just overweight but obese and this was the wake-up call he needed'*. Family and friends were also mentioned by the groups as key motivators for them attending the Programme. But for one man a speaker at the information night motivated him: *'One thing that got to me was he said...you just have to take these few hours for yourself, your time...it just clicked with me...and that egged me on another bit to be there'*. Another man heard the advertisement on the radio and described what appealed to him: *'They were stressing that we weren't going for the Olympics or anything like that. That we were doing this for ourselves and whatever small amount, even if it was a small amount, we were going to achieve that. That's what really hooked me on it'*.

Concern was expressed by one of the men interviewed in relation to physical activity self-efficacy, his own personal belief in himself that he would be able to do the Programme. Bandura (1997, 1989) proposes in his theory of self-efficacy that confidence in personal ability to carry out a behaviour (i.e., self-efficacy) influences the direction, intensity, and persistence of behaviour. This man recalled how: *'I didn't want to first of all make a fool out of myself that I wouldn't be able to. I was afraid that I wouldn't be at that level of fitness for it. Because I knew that there were people there who were very very fit and I wouldn't get a look in with them'*. It was very important to him to do a trial run as initially he didn't believe that he would be able to take part and needed the reassurance that he could. This in fact enabled him to show up and participate on the programme. According to Nikkiah & Redzuan (2009) empowerment is the process in which an individual, groups and communities take control of their circumstance and achieve their goals.

The majority of the men commented on their need to lose weight and get fitter. One of the men interviewed talked about his weight: *'I had weighed myself a few weeks previous to that and I was 20 stone and I said I would have to get down, I was hoping to get down to 14'*.

B. Overall Impact of the Programme

Throughout the narratives there was a strong sense of how much the men had achieved from participating in the Programme. For one man the impact of the Programme represented: *'A lifestyle change overall'*. Another man talked about the impact of the Programme on his fitness level: *'It has got me up to a point where I can motivate myself. I can now take on more sports, as I have achieved a good base fitness level'*.

The main areas identified throughout the narratives were the following: dietary management, weight loss, an overall desire to increase physical activity and fitness levels and to improve mental health as well as physical health.

Dietary Management

One man acknowledged his lack of information on nutrition and diet. *'I didn't know much about dieting properly prior to the programme and it taught me a lot. Our Trainer, played a very big part in that. She gave us ideas of what to do as regards diet as we were walking'*. This supports the evidence base which highlights issues relating to dietary habits of men (European Commission, 2011). These include poor dietary behaviours in general, a lack of nutritional knowledge and a lack of control over food choices. Some 19% of men in Ireland 'hardly ever' make a conscious effort to eat healthily (Irish Universities Nutritional Alliance, 2001). Many men also have poor nutritional knowledge (Kiefer *et al.*, 2005) and tend not to know the nutritional content of foods (Wilkins, 2001). The men described how their shopping habits had changed and the portions of food consumed. Also some of the men has made changes in their alcohol intake. One man describes how he became aware that: *'If I drink 10 pints tonight I'm not going to be in great shape for walking'* and now... *'I would probably have three pints but spend a long time drinking them. I'd be very conscious of drinking that fourth pint now'*. Another man described how his sugar levels had reduced. He rated the nutritional information night: *'That education night was excellent'*. Another area where one of the men has made changes is in food choices and preparation of food at home: *'I have not allowed them to buy biscuits, no biscuits or sweetcake and I do the bit of cooking now and all that...I've gone more adventurous now with fish...I've got them all eating fish now at home'*.

Exercise and Fitness and Impact on Quality of Life

Both of the men interviewed commented on the increase in their fitness levels, and apart from fitness one man noted considerable improvements in his capacity to do daily tasks which has in turn improved the quality of his life.

One of the men described how he felt now: *'Fabulous. It also...from the point of view of work, it would certainly give you far more energy, and generally speaking, my whole health is better...I am certainly able to do things ...even the basic things of bending down to pick up something ...doesn't seem to be a problem you know. I'm sixty three years of age ...it isn't a problem and it used to be a problem. You carry something up and down the stairs in the office, the tongue would be out of me at the top, it isn't a problem anymore. Its great. Quality of life is great'*. A sense of achievement was noted by a second man when his time trial improved by a minute and a half on the third fitness test. *'I did the little bit of jogging along with the walking you know and that was due to the Leader'*.

The majority of men in the groups also talked about improvements in energy, fitness levels and how their attitude to physical activity had changed. A number of men in one focus group described how the weather would not put them off exercising now. One man describes how his level of motivation has changed: *'I feel as a consequence now that I am more motivated now to see the value of a bit of a walk or a cycle or a run than I used to'*. In this man's account, a feeling of achievement was evident, as he describes how the Programme has given him the confidence to join Fit for Life: *'Without the Men on the Move, there is no way I'd have gone to it'*.

Physical fitness was synonymous with health throughout the narratives. The men described how they were: *'Feeling better, looking fitter and looking better'*. Two men related with a sense of achievement how they had to buy new suits. Good physical appearance was important to a number of the men and a trigger to feeling well. Motallebi & Mahvash (2010) highlight how participation in sports activities regularly has significant effects on mental health and can help to promote individual capabilities at both a physical and mental level and enhance the tolerance of the people versus oppressions of the environment and the prevention of mental disorder. A number of the men talked about their mental health: *'I'm not as stressed out as I was back in March'*. There was strong agreement in one of the groups on how exercise and being fitter has a positive effect on mental health: *'Once you get a bit fitter...the self-confidence...you feel a whole lot better in yourself'*. Other men commented on changes in mental functioning, mental alertness, and eating and sleep patterns: *'The brain seems to work a lot better after a walk and I sleep better, eat better and I obviously think better'*.

Weight Loss

Substantial weight loss of over 4 stone was experienced by one of the men interviewed since the start of the Programme: *'I feel better. When I sit down on the chair I don't fall asleep now. I'm wanting to get out and walk and feel better in myself. The compliments from the people as well is good, coming across very well. It makes me feel really really well. I'd never be a person who'd be down as such you know, but it feels super, you know. It makes me want to go on and on, which I am'*. Not only has he received compliments from others regarding his weight loss but his daughter is particularly happy with him. *'And that's another thing that I didn't even think about when I started and she is so happy with me as well you know'*. He also expressed his determination to continue to lose weight, with a target of 14 stone by Christmas. Medically his condition has also improved dramatically when he returned to his GP after 6 months. *'He has put me off blood pressure tablets and diabetic tablets'*. Improvements in mobility have also improved as a result of weight loss and being more active. The second man interviewed also reckoned he had lost 8 or 10 pounds, his wife has noticed that he can now fit into shirts that he previously couldn't fit into and he has had to get rid of the bigger ones: *'If you were here three months ago you would probably be in danger of one of the buttons hitting you in the eye. My clothes in general would fit me much better'*.

Ripple-effect

The men also described how their involvement in the Programme has in turn affected their families positively: *'They're thrilled with it you know. Absolutely. First of all my brother'*. This man's brother is 17 stone and wasn't aware of it until he encouraged him to get on the scales and know his actual weight (he thought he was 15 something). *'He has bought the runners and got the insoles for them but they're still in the box. He knows when I come to Castlebar again I'll be walking there and I'll be encouraging him. Seeing what it has done for me, he knows himself'*. Overweight and obesity poses a major challenge for health professionals in Ireland. According to the authors McPhearson (2004) and McCreary & Sadava (2001) the male perception of weight status tends to associate a large muscular body frame and general bigness with good health, physical attractiveness, masculinity, status, confidence and success. Consequently many men strive for 'enlargement' and may be unable to distinguish between a healthy and unhealthy weight.

A number of the men talked about how their families have also taken up walking. One man spoke about his daughter and their time out walking together: *'You have a chat along the way...its something we probably haven't done for years. Its just grand to get out with her and have that bit of closeness'*. Other men talked about how they now do more physical activities with their children as a result of the Programme. One man talked about the unexpected effect on his diet: *'All the fast foods and biscuits went, no point undoing the good work...my wife stopped buying it. I'd be more conscious now; I would hate to eat dashboard dinners'*.

C. Perception of the Programme Design and Delivery

Structure of Programme

Overall, the Programme received high ratings ($\geq 8/10$) from the men interviewed and the majority of the men in the groups. Throughout the narratives there was a strong sense of how the structure and design of the Programme supported the men to exercise. The defined structure helped the men to plan their week. In addition the importance of goal-setting was mentioned as a motivating factor. The men were in agreement that: *'If left to our devices we could fall asunder very fast'*. Another man commented on how: *'the Programme in its simplicity achieved its goals...it does the basics very well'*.

Leaders/Trainers

All three groups spoke highly of the Leaders and the ethos in the sessions. The men talked about the approach of the Leaders from receiving the reminder text in the morning, to boundaries being set regarding punctuality. The pace of the group was a recurring theme and the opportunity for the men to exercise at their own individual level was a very important factor in the appeal of the Programme. One man commented on how: *'All men were encouraged to go at their own pace and this appealed a lot. The way it was run too...walk, run, jog...you could do whatever you liked'*. Another man commented: *'Another thing the Trainer mentioned was not to worry if you were at the back, and I would be one of the people who'd be at the back of the line in the walking. The people were allowed to work at their own level. There was nobody being forced to travel to a different level'*.

For one group the Leader was a great motivator in getting the men in their group to jog. One man commented on what being able to jog meant to him: *'I had never jogged in my life. Last night we jogged five and a half miles, I felt that I could have done another mile. I am very pleased with myself'*. For one group it was helpful having an experienced marathon runner in the group: *'There was an advanced group ... it started off small...we all wished to go up there, it wasn't said, but we all knew what we wanted to do. Gradually, a lot of us nearly all jogged one night'*.

On-going support from the Leaders was essential to the men interviewed. One man recalls how: *'The Trainer would go around on a bike and check in with everyone which he liked too. I felt very well looked after. It was fun, and it was very good and we were pushed hard enough'*. The effectiveness of the Trainer in encouraging the men to improve their physical performance in the Programme was also referred to by a number of men: *'We would all be working very hard and having the fun at the same time. The Trainer had us doing things we wouldn't realise we were doing'*. On-going support from the Leaders also included information and advice on exercising, nutrition, correct footwear, and sports gear and was noted by a number of men as being an important part of the Programme.

Range of Activities

The diversity of physical activities (walking, cycling, water activities etc.) in the Programme was an attributing factor to the success of the Programme. One man commented on his love of cycling and how he became committed: *'Thats when I really got into it. Cycling is my preference but I still walk'*.

In addition fitness test time trials were important as a motivating element in the Programme. One man described how he felt about the time trials: *'Getting feedback from the time trials and seeing time drop over distance. That made we want to go on and on. I was achieving all the time on it'*.

5k Event as a Motivating Factor

Lane *et al.*,(2010) in a study evaluating the impact of participation in the Flora women's mini-marathon on physical activity behaviour in women highlight that mass events have the potential to engage women who are not ordinarily active. In addition the event itself is a prompt to get active. Throughout the narratives the 5k event was highlighted as an important aspect of the Programme: *'It was more than important. The atmosphere there...getting ready and moving away in the group and knowing that I was in this movement, that was so so good...it meant a lot to do that and to finish it'*. This man's picture was on facebook and his daughter took it and put it on a mug for him for father's day. A number of men in one of the groups acknowledged the event as a motivating factor: *The 5k challenge was important, that you had something to work towards, that it wasn't an aimless kind of Programme. There was an end result...something you had to work for'*. One of the men interviewed also commented on the importance of the 5k event from the group perspective: *'It was good for group cohesion and also individually to complete the distance. It was only 5k then, but it was a lot then'*.

Group Aspect

All men spoke about the importance of exercising as part of a group and how this made the difference for them in terms of attending, enjoying and getting the most out of the Programme. One man stated that men in the West can be isolated and he believed that this Programme was key to addressing that broader issue. Some of the men in the groups felt that the success of the Programme was due to the fact that it was 'male only' and: *'not boys, all plus 35 years...so I mean they had the the exact same mentality of what to expect out of it. It was easier to get on as a group of men. You could let yourself go a bit more'*.

Another man commented on why he thought the Programme was successful as a 'male only' Programme: *'I think it goes back to primal times when men went off together hunting. There was great comradery, meeting up, as a lot of us didn't go to the pub...the social aspect, all the lads coming out, laughing and joking. The Programme catered for everyone... every level. I grew to like running and understood how to run'*.

In a study published by the Economic and Social Research Institute, in association with the Irish Sports Council, the authors Fahey, Layte & Gannon (2004) highlight that sport in Ireland has enormous social benefits, comparable to its benefits as physical exercise

The key recommendation in the report is that sports policy in Ireland should recognise and support the social aspects of sport, taking account of the social bonding, community involvement and general contribution to the effective functioning of society that they provide. Throughout the narratives there was an acknowledgement of the importance of having fun and the social aspect of the Programme. Some past studies highlight how knowledge and belief in the health benefits of physical activity may motivate initial involvement (Teraslinna, 1969), but feelings of enjoyment and well-being seem to be stronger motives for continued participation in corporate programmes (Morgan *et al.*, 1984). The social aspect of the Programme and the importance of the 'group' was stressed as crucial to the success of the Programme and a key motivating factor. *'It will motivate anybody to walk when you get to know these people and you do basic exercises that you do...and you do them together and you actually have fun doing them. Its not serious you know and there is no mad rush to get on, you know if you finish last it doesn't matter. Nobody says anything about how quick you ran it'*. For one man: *'Once I became part of the group, it was hard to miss it'*.

The second man interviewed described how: *'Everyone got on great with one another. The group together meant a lot to me and that is why we are working now to stay together. The friendliness of the people and all that. Everyone felt that they were getting something out of it along with the exercise...meeting up with people'*.

The group also worked as a motivating factor in a competitive way. All the men in one focus group agreed that there was a competitive edge that kept them pushing themselves to improve their fitness: *'You'll naturally fall into sub-groups with fellas of a similar ability and you'll always be egging each other a little bit...you think of the fella in front ...I'll get him before he finishes'*. One man described how he used the group as a benchmark, in particular when he saw older men doing the 5k challenge quicker than him. This made him realise where he could be.

D. Continuation of the Programme

Understanding how to facilitate the maintenance of health promoting behaviour represents a major challenge for health practitioners and researchers. The difficulty in adhering to regular physical activity is challenging as highlighted in the high proportion of individuals who are sedentary in Ireland (European Commission, 2011, Morgan *et al.*, 2007). Difficulty adhering to physical activity regimen is also reflected by the high relapse rates from physical activity programmes which have been estimated at approximately 50% (King *et al.*, 2002). One of the men described how he thought he could continue to exercise without the Programme. However he also voiced his concern if the Programme doesn't continue: *'I believe that the longer the Programme is not happening the reality will be that I may relapse. I really do need the support of the Programme long term'*. Another man also acknowledged how he needed a Leader to push and motivate him. He could already notice in the two week since the Programme ended that he had regressed somewhat. The groups and the men interviewed both stressed that in order to keep improving they need a Leader and a group environment to motivate them.

The men identified how they see a role for themselves in keeping the Programme going and suggested that: *'Mobilising themselves is an option'*. All of the groups have been quite proactive in meeting as a group to exercise since the Programme finished: *'Plan is every second Thursday night, cycling one night and walking the next. Would welcome being brought together for one night as a group by the organisers and this would help them to take it from there'*.

Some consideration was given to the content of future Programmes, if the Men on the Move continued. The majority of men suggested that there should be a range of activities offered e.g. walking, jogging, running, swimming lessons, circuit training, gym work, hill-walking, surfing.

E. Final Comments

The realisation of the importance of one's health was expressed by one man: *'It made me realise my health was important and I didn't consider it before'*. One of the men interviewed suggested that Programme planners should target younger men: *'I think that men should be got to this younger than I am. I know young men in their forties who are grossly overweight...its about lifestyle and I think that if they got involved in a Programme like this it would do wonders for themselves and their families.* A recommendation was also put forward: *'If you bring in the Doctor, they would benefit too by learning about the Programme, and perhaps improve their practice by recommending Men on the Move'*. This man also commented on how some of the men who did the Programme had reduced or cut out medications because of improvements to their health.

There was great sense of enthusiasm about the value and benefits of the Programme and the desire to encourage others to come out and join the Programme and enjoy it. One final comment from one of the men about the Programme highlighted the huge impact of the Programme and a new awareness of how he can improve his quality of life and life expectancy, experienced as a result of the Men on the Move Activity Programme:

'Nobody wants to die...too soon...man made by yourself by not exercising and eating wrong and all that'.

5. Conclusion and Recommendations

5.1 Context

There is a long established positive relationship between physical activity and health. Physical activity helps to prevent a range of chronic diseases, including cardiovascular disease, type 2 diabetes, some cancers, and obesity. It has a positive effect on musculoskeletal health and psychological well-being (Bauman *et al.*, 2009). Physical activity also modifies other risk factors such as hypertension, total cholesterol and high-density lipoproteins and is associated with other healthy behaviours such as healthy diet, safe drinking and non-smoking (WHO, 2009). Physical inactivity, on the other hand, is recognised as a major independent risk factor for chronic noncommunicable diseases, accounting for 3.5% of the disease burden and up to 10% of deaths in the European Region (WHO, 2006).

Overweight and obesity internationally and in Ireland is a major health concern. In Ireland the prevalence of obesity has significantly increased. 64.5% of men in the age group '36-50 years' are overweight and 11.8% are obese. Similar levels exist in the age group '51-64 years'. The greatest increases are observed in men aged 51-64 (IUNA, 2011). In relation to physical activity (PA) the National Survey of lifestyle attitudes and Nutrition (SLÁN 2007) showed that only 32% of Irish men took part in vigorous/strenuous activity for at least 20 minutes three or more times a week. In addition the overall pattern of higher physical activity reduced significantly with increasing age. From a public health perspective it is important that physical activity is undertaken on a regular basis and over a sustained period of time to achieve health benefits.

Men's health is now on the policy agenda. There is an awareness and unease about the burden of ill-health experienced by men. Male life expectancy continues to be lower than female life expectancy and men in Ireland have higher death rates for most of the leading causes of death and at all ages (European Commission, 2011). Gender also has a crucial bearing on men's health. The challenge in addressing the current position of men's health lies in promoting healthy living, lifestyle and supporting behaviour change.

The publication of the National Men's Health Policy in 2008 was an important step in promoting health and well-being for all men in Ireland. According to Richardson & Carroll (2008) it is important to target men as a population group and to identify and develop models of working with men, as identified in the Health Promotion Strategy, 2000-2005 (Department of Health and Children, 2000). It is also recognised that there is a lack of evaluation of health promotion programmes that exclusively target men (DOHC, 2008). This report seeks to address this deficit.

This report focuses on the impact of the Men on the Move Activity Programme by examining the risk factor and health profile of the Participants at the start of the Programme and throughout the different stages of the Programme over 24 weeks. Objective risk factors and subjective health measures were assessed at each of the stages; start of the Programme, end of Phase1, end of Programme and 6 Months follow-up. The purpose of this report is to provide a descriptive account of levels and patterns of physical activity, lifestyle behaviour and mental health among the participants, viewed from a health perspective. The report also assesses levels of physical activity at 6 months follow-up, in order find out if the participants had adhered to the regular physical activity regimen they achieved on the Programme.

5.2 Validity of Measures

The data used in this report is based on objective risks factor measurements (BMI, waist and fitness levels) and subjective self-reports (physical activity, lifestyle behaviour, mental health and well-being). Physical activity levels were measured using the IPAQ. There are limitations with IPAQ, including difficulties interpreting the exercise domains (vigorous and moderate).

This report also recognises that self-reported measures can lead to the over estimation of actual physical activity levels. However, the IPAQ is an important tool now used on an international basis to allow investigation and surveillance of physical activity levels.

5.3 Conclusion

The Men on the Move Activity Programme is an initiative that targeted physically inactive men over 35 years of age specifically. The Programme used an effective recruitment strategy to engage men for the Programme in 3 Centres in Co. Mayo: Ballina, Claremorris and Westport. This consisted of adopting a positive approach to men's health in a non-threatening and 'male' friendly environment. A suitable 'hook' (free health check) was used to engage men to attend the information evenings. 136 men attended and availed of the free health check in the 3 Centres. The men were then invited to register for the Programme in their area. The Programme was offered free of charge in their local community, in order to remove cost and accessibility barriers. The Programme planners also recruited experienced physical activity specialists, in each Centre, which was key to the successful implementation of the Programme.

5.3.1 Demographic and Baseline Risk Factor and Health Profile of Men on the Move Participants

The majority of men (74.7%) participating in the Programme were aged between 35-54 years of age. 68.3% of the men were employed. Over 52% of the men had completed some form of second level education and 42% of the men had completed post leaving certificate education.

The baseline risk factor profile demonstrated that a high level of risk factors were present in the men. Overall 75% of the men screened at the start of the Programme had high blood pressure ($\geq 140/90$ mmol/L). In addition nearly two thirds of the men (65.2%), based on BMI calculations were in the obese categories. Only 1.4% of the men were in normal range for BMI. Body fat distribution, also an indicator of disease risk, identified that over two thirds of the men (68.9%) were in the high risk category when their waist circumference was measured.

Overall over 82% of men reported having good or very good health. However the majority of men (83.7%) reported that they were not happy with their level of physical activity. In addition nearly two thirds of the men (64.6%) were unhappy with their energy levels.

The National Physical Activity Guidelines for Ireland state that adults should engage in at least 30 minutes of moderate intensity physical activity on most (5) days a week (www.getirelandactive.ie). The National Survey of Lifestyle, Attitudes and Nutrition (SLÁN 2007) showed declining physical activity levels and these have been found to be very obvious amongst men. The most recent survey showed that only 32% of Irish men took part in vigorous/strenuous activity for at least 20 minutes three or more times a week (Morgan *et al.*, 2008). The results in this study demonstrate lower levels of physical activity than reported in SLÁN 2007 at the start of the Programme. Less than one quarter of men (23%) reported that they participated in vigorous/strenuous activity (high active). In addition 30% of the men did not meet the recommended guidelines in this study for physical activity. In the SLÁN Survey 2007, 26% of men met the guidelines. It must be noted, it is not possible to compare age groups as different age bands are used in SLÁN 2007.

However the rationale in this Programme for targeting men over 35 is supported by the SLÁN 2007 Survey, which shows the level of decline in physical activity, more visible in the moderate/vigorous physical activity categories within the ages 18-29 and 30-39, together with the corresponding increase in sedentary men between these age groups. This level of decline is also witnessed in the Men on the Move Activity Programme. The men reported the total number of days of physical activity they undertook per week (≥ 5 days moderate activity per week and ≥ 7 days vigorous activity per week). Overall a pattern was observed in higher levels of activity in younger men reducing with increasing age.

According to Richardson (2004), one possible implication from these findings is that men who 'retire' from competitive strenuous sport in their 30's may 'fall into' sedentary lifestyles, and may not look to other forms of physical activity as a means of remaining physically active. In addition this also coincides with numerous other demands on men e.g. getting married, a lack of concern about physical appearance, and work-life balance issues.

The growing level of physical inactivity among men is compounded by their poor dietary habits (European Commission, 2011, Kelleher *et al*, 2003), and by apparent anomalies between what is considered 'normal weight' or 'overweight' at the level of public health and what men consider these terms to mean. Overall, the majority of men (87.7%) reported that they were actively trying to manage their weight with nearly two thirds of the men (65.2%), based on BMI calculations, in the obese categories. Dietary management is a fundamental element in maintaining weight and reducing risk factors for high blood pressure, high cholesterol, CHD, type 2 diabetes, cancer and other chronic conditions (Department of Health and Children, 2009). The evidence base suggest that men are less likely than women to avail of weight control/weight loss programmes if they are overweight (European Commission, 2011, Richardson, 2004 cites Watson, 2000; Toomey, 2004).

The Food Pyramid (Department of Health, 2012) provides healthy eating guideline to encourage people to eat a variety of foods, incorporating advice on cooking, alcohol consumption, weight management and physical activity. In this study the majority of men (54.2%) consumed red meat 4 or more times a week. The World Cancer Research Fund recommends a limit of 500g red meat (cooked weight) per week to reduce the risk of bowel cancer. However this study did not ask what amount of red meat was consumed weekly, so accurate levels of red meat consumed are not available. In relation to consumption of the recommended level of fruit and vegetables, to ensure adequate levels of fibre, vitamins and minerals are received; over 93.7% of the men did not meet the guidelines compared to 59% of men in the SLÁN 2007 Survey. In addition, over 40% of the men reported consuming fried food twice a week or more. The evidence demonstrates that eating lots of fat laden food can lead to weight gain and obesity. The Department of Health recommends that men consume no more than 17 standard drinks (units) of alcohol weekly. The majority of the men (87%) complied with the guidelines.

A healthy diet, regular physical activity and participation in group-based activities can have a positive effect on the quality of life and symptoms of anxiety and depression (Conn, 2010). A number of men on the Programme reported being affected by stress. One fifth of the men (17%) reported that their lives were limited by anxiety, stress or depression 'moderately' or 'quite a lot' and over 27% of men reported that they were 'slightly' affected by stress. In addition over 46% of the men expressed an interest in attending a health education workshop on stress management and relaxation. Richardson & Carroll (2008) highlight that there is a lack of recognition in society of the prevalence of stress among men, that there were significant barriers preventing men acknowledging stress and that coping mechanisms adopted by many men need to deal with stress. Richardson (2004) also highlights how stress can potentially and additionally compromise men's health in ways that many men may resort to health-compromising behaviours as a means of managing stress.

5.3.2 Impact of the Men on the Move Activity Programme

From the risk factors and health profile identified at the start of the Programme outlined above, the Men on the Move Activity Programme has successfully recruited men who are over 35 years, overweight and obese and physically inactive, and who were at risk of developing chronic life threatening illnesses, including heart disease, cancer, stroke, and diabetes. In this section the impact of the Men on the Move Activity Programme and the main findings will be discussed.

Risk Factor and Health Profile

Objective Risk Factor Measurements

There is a high prevalence of obesity in the Men on the Move participants evident from the screenings at the start of the Programme. The results presented in this report demonstrate that improvements were seen in waist circumference between the start of the Programme and the end of Phase 1. The cut-off point established for high risk for men's waist circumference (≥ 102 cms/40 inches) identified that over 66% of the men were in the high risk category at the start of the Programme. By the end of Phase 1, the percentage of men in this category had reduced to 51%. This pattern was consistent at the end of the Programme with a further decrease, with 43% of the men measuring into this high category. BMI levels recorded throughout the Programme also demonstrated the impact of the Programme in promoting weight loss. Overall improvements were seen in BMI between the start of the Programme and the end of the Programme with a reduction in the obese categories from 65.2% at the start of the Programme to 45% at the end of the Programme.

Fitness levels were also measured at each stage in the Programme. A protocol for the fitness test was followed in each Centre. A limitation of the test must be noted in relation to the 3 different venues used for testing and the 3 different facilitators measuring the test. However the results demonstrate a pattern of reduction in fitness times with the majority of men reducing their fitness times at each stage. The results were grouped into categories to show the levels of changes in fitness times. The largest decreases in reduction in fitness test time between the start of Programme and the end of the Programme were seen in the '5-10.9%' and '11-15%' categories. 25% of the men reduced their fitness test time by '5-10.9%' and 18% of men reduced their fitness time by '11-15%'. However 22% of men achieved overall reduction in their time between the start of the Programme and the end of Programme, of '21%-30%' and 19% of men improved their time by more than 30%. The inclusion of these fitness tests in the Programme proved to be a successful motivating factor for the men. This result was supported in the qualitative study.

Subjective Health Measures

Physical Activity

In general, the main improvements were seen in the 'low' active and 'high' active categories. The 'low' active category represents the men who do not meet the recommended guidelines for physical activity of at least 30 minutes of physical activity weekly. Overall, 30% of the men were in the 'low' active category at the start of the Programme. However by the end of the Programme, the percentage of men in this category decreased to 18%. This pattern of improvement in physical activity levels was consistent at 6 months follow-up, with only 4% of the men not meeting the recommended guidelines. Improvements were also seen in the 'high' active category between the start of the Programme and the end of Programme. 35% of men measured into the 'high' active category at the end of the Programme compared to 23% at the start of the Programme. A further increase was seen at 6 months follow-up with 47% of men now in the 'high' active category.

A pattern of increase was observed across all stages of the Men on the Move Activity Programme for physical activity on at least 7 days (start of Programme: 18%; end of Phase 1: 27%; end of Programme: 32%; 6 months follow-up: 41%).

In addition corresponding improvements were also seen in the level of sedentary activity (≥ 6 hours sitting) reported by the men. 43% of the men reported that they spent up to '6 hours or more hours', sitting at the start of the Programme. By the end of the Programme the percentage of men reporting sedentary activity of this level had reduced to 33%.

A further decrease of 3% was also seen at 6 months follow-up. The obesity epidemic is attributed to reduced physical activity (Patel *et al.*, 2010). According to the authors research has shown that by reducing time spent sitting, regardless of activity, this may improve the consequence of obesity.

Health Status, Mental Health and Well-being

Though more women are diagnosed with mental health problems, this masks the extent of the problem for men, as men's depression and other mental health problems tend to be under detected and under treated in all European countries (European Commission, 2011). According to the report on the State of Men's Health in Europe, this is due to men's difficulty in seeking help, and men's different presentation of symptoms to women, with higher levels of substance abuse and challenging behaviours. In addition, despite high levels of premature mortality among men, it is surprising that many have high levels of satisfaction with their own health.

In this study improvements were reported in perceived (self-rated) between the start of the Programme and the end of the Programme. 30% of men rated their health as 'very good' at the start of the Programme. By the end of the Programme an increase was seen with 44% of men rating their health as 'very good'. Though, no major improvements were seen in the 'Mental Health' domain which measured stress, anxiety and depression. Over 15% of the men still reported that stress, anxiety and depression limited their daily activities 'moderately' or 'quite a lot', and approximately one third of the men (31.8%) reported being 'slightly' affected by stress, anxiety and depression. A slight improvement was observed in social functioning with a reduction in the number of men reporting that personal or emotional problems limit their social activities from 36.1% at the start of the Programme to 31.4% at the end of the Programme. These findings supported by the evidence base point to the need to support men to cope effectively with stress with a more targeted approach, as identified in the National Men's Health Policy (2018-2013). However, in the 'Vitality' domain, there was a marked increase in the level of energy reported throughout the different stages in the Programme with nearly double the men (68.2%) reporting satisfaction with their energy level at the end of the Programme, compared to 35.4% at the start of the Programme. This level of reporting was maintained and even increased to over 75% of the men satisfied with energy levels at 6 months follow-up.

Lifestyle Behaviour

Alcohol-related harm is a major public health concern in the EU, accounting for over 7% of all ill health and early deaths (European Commission, 2009). Excessive alcohol consumption is the third most important cause of morbidity and mortality in Europe (Mladovsky *et al.*, 2009). A high level of men (89%) reported that they drank alcohol at the end Programme similar to the start of the Programme (88%). Increases were observed in the level of alcohol consumed at the end of the Programme for those who reported that they consumed alcohol. In addition the average number of standard drinks consumed increased from 6.5 at the start of the Programme to 8 standard drinks at the end of the Programme.

Research has shown that men's diets are generally less healthy and less nutritiously balanced than women's diets. Overall, the majority of men (93.7%) still do not meet the recommended guidelines for the daily consumption of 5 or more portions of fruit and vegetable (end of Phase 1: 94.4%; end of Programme: 94%). In addition, an increase in the consumption of red meat was seen between the start of the Programme, and the end of the Programme. The majority of men (60.6%) reported that they consumed red meat 'daily' or '4-6 times a week' at the end of the Programme compared to 54.2% at the start of the Programme. However a pattern of reduction in the consumption of fried food 'twice a week or more' was seen at the end of Phase 1 and at the end of the Programme (end of Phase 1: 36%; end of Programme: 26.1%) compared to the start of the Programme (40.2%). And finally patterns of reduction were seen in the use of salt while cooking at the end of Phase 1 and at the end of the Programme.

Overall 31.8% of the men reported that they ‘always’ or ‘usually’ add salt to their food while cooking compared to over 36% at the start of the Programme. These results demonstrate that participants made changes in their dietary behaviour and eating and cooking habits. However a more comprehensive approach is required in the Programme to ensure the men receive the maximum support to improve their nutritional knowledge and to support healthy behaviour change and weight loss.

Sub-group Study

The sub-group study involved a sub-sample of the participants in the Programme (N=38) who attended all 3 stages of measured assessments (start of the Programme, end of Phase 1 and end of Programme). Analysis was computed in the sub-sample using the General Linear Model (GLM) – repeat measures design. Specific and stringent tests were performed to test for statistical significance. The three health related profiles presented in the section are BMI, waist circumference and fitness level.

The main aim of the Programme was to increase the level of physical activity in the men. The Programme also contained a health education component with one session offering advice and information on exercising, diet and nutrition. However, the constant message throughout the Programme, delivered by the Leaders and the Programme planners was on promoting healthy living and improving lifestyle behaviour, at all times of contact with the participants. This was a very important element taking into account the level of overweight and obesity in the participants and the fact that the majority of men were actively trying to manage their weight. The results in the sub-group study demonstrate the effectiveness of including health information and education on diet and nutrition in physical activity interventions.

Overall, there was a significant reduction seen in mean waist circumference between the start of the Programme and the end of the Programme of 4.5cms ($p<0.05$), (see Table 16). The evidence base highlights how abdominal obesity is strongly linked with cardiovascular risk with even just a 1 cm increase in waist circumference being associated with a 5% increase in risk of future CVD events including fatal and non-fatal CHD and stroke (De KL et al., 2007). Mean BMI values also decreased somewhat between the start of the Programme and the end of the Programme from 30.8 to 29.9. This difference was significant ($p<0.05$). While reduction was seen in the mean level of weight of over 2kg between the start of the Programme and the end of the Programme, this was not significant ($p>0.05$). At the same time the practical significance can be taken into account. Fitness tests were an important part of the Programme. Significant reductions were observed in fitness test times: between the start of Programme and end of Phase 1, (Mean Difference 86.270, ± 17.33 , $p<0.05$) and between end of Phase 1 and end of Programme, (Mean Difference 62.432, ± 13.448 , $p<0.05$).

Qualitative Study

The qualitative study and open-ended questions in this evaluation confirm the overall positive impact of the Men on the Move Activity Programme. Throughout the narratives and feedback there was a strong sense of how much the men had achieved from participating in the Programme. The majority of men reported increased levels of physical activity, fitness and energy. But importantly other positive spin-offs of the Programme supported by the quantitative results included: significant reductions in BMI and waist circumference, weight loss, improved dietary habits, and nutritional knowledge. There was also a raised awareness of the importance of exercising and increasing one’s level of fitness to improve overall physical and mental health. In general the Programme contributed hugely to improving the quality of life of the men. Not only did the Programme improve the men’s health but the ripple-effect in turn helped family members and friends. The men also identified key elements in the structure of the Programme that helped to motivate them to improve their physical activity levels and commit to attending the sessions. The social aspect of the Programme, the importance of the ‘group’ and the ‘male only’ aspect were stressed as essential to the success of the Programme.

The fun and social element in the Programme seemed to be a strong reason for continued involvement in the Programme. In addition, the diversity of activities and the approach of the Leaders and on-going support received were contributors to motivating the men to adhere to the Programme.

5.4 Recommendations

The results of this evaluation have a clear and important public health message for men – a simple informal male-focused physical activity programme offered in the local community, is effective in influencing men to increase their physical activity levels, support weight management and improve overall physical health and quality of life. The reach and effectiveness of the Programme lies in the success of the Partnership’s informed approach in the planning, implementation and delivery of the Men on the Move Activity Programme in three towns in Co Mayo: Ballina, Claremorris and Westport. The Programme has demonstrated it is a model programme and that it has transferability as an intervention, based on the fact that it was successfully implemented and delivered in three different locations. In order to ensure sustainability into the future, it is essential that funding is ring fenced to allow the Men on the Move Activity Programme to be rolled-out to other towns throughout Ireland. Some further recommendations include the following:

- **Raise awareness of Men’s Health and the Men on the Move Activity Programme**

This report highlights the importance of raising awareness amongst men of fundamental health issues. The challenge is to create a preventative health culture among men in Ireland. This can be achieved by increased education and awareness of men’s health issues, by promoting healthy living, lifestyle and by supporting behaviour change in men through Programmes like the Men on the Move. This will in turn increase the reach of the Men on the Move Activity Programme and help to combat alarming rising levels of physical inactivity, overweight and obesity and also reduce the risk of developing chronic life threatening illnesses for many men.

- **Utilise a targeted approach in recruiting men for the Men on the Move Activity Programme**

With the current level of unemployment, and the established causal link between unemployment and the health and well-being of men, it is important to target men who are unemployed and to offer them the meaningful support of the Men on the Move Activity Programme. In addition an increased focus on partnering with Men’s Development Projects (e.g. Men’s Sheds) and Community Development Projects (e.g. Resource Centres) will also support men affected by marginalisation and disadvantage, and would help to improve the reach of the Men on the Move Activity Programme. The age criteria in the Programme should be lowered to 30 years in order to recruit younger men as they fall out of competitive sport. By offering the men on the Programme to men in the early 30’s it may help to halt the pattern of physical inactivity, increasing overweight and obesity. In addition, as the overall pattern of higher physical activity reduces significantly with increasing age, it is important to target retired men to prevent them falling into the pattern of sedentary behaviour and overweight and obesity.

- **Continue to utilise novel strategies to engage men**

It is important to continue to use novel strategies to engage men effectively by bringing health screening into the community to men who may feel more comfortable having a health check-up at a sports ground or an alternative venue, as opposed to a traditional health service. The free health check focusing on body measurements is effective as a ‘hook’, and should be used as a strategy to engage men who are physically inactive and overweight to participate in physical activity Programmes.

- **Include a comprehensive approach to health education**

The nutritional session and health advice and information delivered throughout the Programme was an important element in the Men on the Move Activity Programme. However this report recommends the inclusion of a comprehensive series of health education sessions on nutritional information, dietary management and healthy lifestyle behaviour throughout the Programme. This will help to support men who are actively trying to manage their weight and will promote healthy lifestyle behaviour.

- **Continue to include challenges in the Programme**

Goal setting was an important element in the success of the Programme. The 5k event was a target for the men in the Programme to work towards. Programme planners should continue to include events in the Programme design at strategic stages in the Programme, to motivate the participants.

- **Mental Health Promotion**

Include a mental health promotion message in the Programme – this may help to reduce the stigma of mental health problems and encourage men to seek help to cope effectively with stress.

- **Men on the Move Maintenance Programme**

The majority of Men on the Move participants did not join any other sporting groups or clubs when the Programme finished. This result highlights the importance of providing follow-on Men on the Move Activity Programmes in order to support men to achieve their aims and to help maintain the physical activity behaviour changes achieved, during the Programme

- **Acknowledge the importance of the social aspects of Sport Programme like the Men on the Move Activity Programme**

It is essential that sports policy in Ireland should recognise and support the social aspects of sport in Programmes like the Men on the Move Activity Programme; taking into account the enormous social benefits, comparable to the benefits of the physical exercise itself.

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Appendix 1: Advertisement

men Activity Programme on the **move**

Mayo Sports Partnership
Comhpháirtíocht Spóirt Mhaigh Eo
An Irish Sports Council Initiative

- ▶ Are you aged **35+**, **male** and living in the **Westport, Ballina, Claremorris** area?
- ▶ Do you want to feel fitter, lose weight, have fun, have more energy and meet new people?

If you do why not get involved in

men Activity Programme on the **move**

Public Meetings
have been arranged for:

Date	Venue	Time
Monday 12th March	Manor Hotel Ballina	7.30pm
Tuesday 13th March	Mill Times Hotel Westport	7.30pm
Thursday 15th March	McWilliam Hotel Claremorris	7.30pm

Free Health Check From 7pm

To find out more about the initiative or to register contact the Mayo Sports Partnership at 094-9047025 or email rmcnamara@mayococo.ie

Supported By:

HE
midwest
CRÍ
West of Ireland Cardiac Foundation

Appendix 2: Cover Letter & Baseline Questionnaire



Men on the Move Activity Programme

Title of Study: *To evaluate the impact of Men on the Move Activity Programme, an initiative which aims is to increase the level of physical activity amongst men over 35 years of age.*

Researcher:

Lucia Canavan
Men on Move Programme,
St Marys Headquarters, HSE, Castlebar, Co Mayo.
Mobile: 087 2249943
Email: luciacanavan@gmail.com
30/03/2012

Dear Participant,

You are being invited to take part in a research study. The purpose of the study is to collect information which will be valuable in evaluating the impact of Men on the Move Activity Programme, a partnership initiative between the HSE and Mayo Sports Partnership, which you have registered to take part in over the next number of weeks. The results of this study will help in the future planning and development of physical activity programmes offered in your community. This will in turn help to support men to become more physically active and to improve their overall health and quality of life. The study will involve your participation in:

- The enclosed questionnaire
- Fitness Tests, Health Screenings and follow-up questionnaires at the end of the Programme and at 6 months

Enclosed you will find the initial questionnaire which will take approximately 5 minutes to complete. **When you have finished please place the completed questionnaire in the stamped addressed envelope provided. Finally it is important to complete the Participant's Consent Section at the start of the questionnaire.**

We would really appreciate if you could send the questionnaire back immediately by return post.

Confidentiality

The study is totally confidential. Each participant will be allocated a unique ID number which will make it impossible to be identified. Please do not write any identifying information on the questionnaires. The information collected will be stored in a confidential manner, and in line with best practice. In addition the data will only be accessed by the researcher. If you have any queries, please do not hesitate to contact me.

Kind regards,

Lucia Canavan

Mayo Sports Partnership



Comhpháirtíocht Spóirt Mhaigh Eo
An Irish Sports Council Initiative



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



Heart of Ireland Cardiac Foundation

Fighting Heart Disease & Stroke

Men on the Move Activity Programme Questionnaire

Researcher: Lucia Canavan

B.Soc.Sc, MA (Health Promotion)

30th March 2012

Totally Confidential

Respondent Number:

Participant's Consent

I confirm that I have read and understood the information provided and agree to take part in this study.

Please tick:

Date: _____

Section A: Demographic and Household Information

1. In what country were you born?

Ireland (Republic) Northern Ireland UK Other

2. What is your ethnicity? (Please tick (✓) one box only)

White (Irish, Irish Traveller, Any other white background)

Black or Black Irish (African or Any other black background)

Asian or Asian Irish (Chinese or Any other Asian background)

Other (including mixed background)

3. Which of the Men on the Move Activity Centres are you participating in?

Claremorris Westport Ballina

4. Which age group, do you belong to?

35-44 45-54 55-64 65-74 75 or over

5. Do you have a medical card?

Yes No

6. What is your present marital status?

Married Cohabiting Single/never married Separated Widowed Divorced

7. What is the highest level of education you have completed to date? (Please tick (✓) one box) only.

Primary education only Intermediate/Junior Certificate Leaving Certificate

Diploma/Certificate 3rd Level Primary Degree (University/IT) Postgraduate Degree/Higher

8. **What is your current occupation?** Please tick (✓) one box only.

- | | | | | | |
|-------------------|--------------------------|---------------------------------|--------------------------|-------------------------------|--------------------------|
| Employee | <input type="checkbox"/> | Self employed (outside farming) | <input type="checkbox"/> | Farmer | <input type="checkbox"/> |
| Student Full-time | <input type="checkbox"/> | Un-employed (looking for a job) | <input type="checkbox"/> | Long-term sickness/disability | <input type="checkbox"/> |
| Retired | <input type="checkbox"/> | Fás/State Training Scheme | <input type="checkbox"/> | Looking after home/family | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | | | | |

Section B. General Health & Well-being

1. **In general would you say your health is?**

- Excellent Very good Good Fair Poor

2. **Is your daily activity limited by a long term illness, health problem or disability?**

- Yes No

3. **Do you or have you had a long term/severe illness, which was diagnosed by a doctor?**

- Yes No (Please tick (✓) the ones that apply to you)

- | | |
|--|--------------------------|
| a. Asthma | <input type="checkbox"/> |
| b. Chronic bronchitis, chronic obstructive lung (pulmonary) disease, emphysema | <input type="checkbox"/> |
| c. Heart attack | <input type="checkbox"/> |
| d. Angina | <input type="checkbox"/> |
| e. Stroke | <input type="checkbox"/> |
| f. Rheumatoid arthritis (inflammation of the joints) | <input type="checkbox"/> |
| g. Osteoarthritis (arthrosis, joint degeneration) | <input type="checkbox"/> |
| h. Lower back pain or other chronic back condition | <input type="checkbox"/> |
| i. Diabetes | <input type="checkbox"/> |
| j. Cancer (malignant tumour, also including leukaemia & lymphoma) | <input type="checkbox"/> |
| k. Urinary incontinence, problems in controlling the bladder | <input type="checkbox"/> |
| l. Anxiety | <input type="checkbox"/> |
| m. Depression | <input type="checkbox"/> |
| n. Other (please specify) _____ | <input type="checkbox"/> |

4. Are you a smoker?

Yes No (If no please go to Q. 7)

5. How much do you smoke per day?

1 – 5 Cigarettes 6 – 10 Cigarettes
11 – 15 Cigarettes 16 – 20 Cigarettes
More than 20 Cigarettes Pipe or Cigars

6. Would you like to stop smoking (choose only one)

No Yes, I am thinking of it
Yes, I have made plans to stop Yes, I have tried to stop but did not succeed

7. How often do you have a drink containing alcohol?

Never Monthly or less 2-4 times a month Once a week
2-3 times a week 4 or more times a week

**8. How many drinks containing alcohol do you have?
on a typical week (7 days)? _____**

1 Drink	1 Drink	1 Drink
½ pint beer etc.	1 single spirit	1 glass wine (125 ml/small glass)

9. Are you actively trying to manage your weight?

Yes No

10. How satisfied are you with your health?

Very satisfied Satisfied Neither satisfied/dissatisfied Dissatisfied Very Dissatisfied

11. Is your daily activity or work limited by anxiety, stress or depression?

Not at all Slightly Moderately Quite a lot Extremely

12. Do personal or emotional problems keep you from doing your usual work or daily activities?

Not at all Very little Somewhat Quite a lot Can't participate in activities

13. Do personal or emotional problems limit your social activities with your family or friends?

Not at all Very little Somewhat Quite a lot Extremely

14. Are you happy with the amount of energy you have?

Yes No

Section C: Nutrition

1. How many portions of Fruit & Vegetables do you eat on a daily basis?

None 1 portion 2-3 portions 3-4 portion At least 5 or more than 5 portions

2. How many times a week do you eat oily fish? (e.g. Mackerel, Salmon, Sardines, Trout, Herring, Fresh Tuna, Pilchards)

Never Once a week Twice a week More than twice a week

3. How often do you eat lean red meat a week?

Daily 4-6 times a week 2-3 times a week Once a week Never

4. How often to you eat fried food (cooked on a pan with oil/butter etc.)?

Daily 4-6 times a week 2-3 times a week Once a week Never

5. How often do you add salt to food while cooking?

Always Usually Sometimes Rarely Never

Section D: Physical Activity

We are interested in finding out the kinds of physical activities that you have been doing before you started the Men on the Move Activity Programme. Please answer the questions based on the 7 day period in the week before you started the Men on the Move Activity Programme.

Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house, yard and farm work, to get from place to place, and in your spare time for recreation, exercise or sport.

Vigorous Activity

1. Think about all the **vigorous** activities that you did **during the 7 days before you started the Men on the Move Activity Programme**. *Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.*

During the 7 days before you started the Men on the Move Activity Programme, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?

_____ **days per week**

No vigorous physical activities → *Skip to question 3*

2. How much time did you usually spend doing **vigorous** physical activities on any one of those days? (*In hours and/or minutes*)

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

Moderate Activities

3. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

During the **7 days before you started the Men on the Move Activity Programme**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

_____ **days per week**

No moderate physical activities → **Skip to question 5**

4. How much time did you usually spend doing **moderate** physical activities on any one of those days? (*In hours and/or minutes*)

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

Walking

5. Think about the time you spent **walking** in the **7 days before you started the Men on the Move Activity Programme**. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

During the **7 days before you started the Men on the Move Activity Programme**, on how many days did you **walk** for at least 10 minutes at a time?

_____ **days per week**

No walking → **Skip to question 7**

6. How much time did you usually spend **walking** on any one of those days? (*In hours and/or minutes*)

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

Sitting

7. The last question is about the time you spent **sitting** on weekdays during the **7 days before you started the Men on the Move Activity Programme**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

During the **7 days before you started the Men on the Move Activity Programme**, how much time did you spend sitting on a **week day**? (*In hours and/or minutes*)

_____ **hours per day**
_____ **minutes per day**

Don't know/Not sure

8. **Were you happy with your level of physical activity/exercise before the Men on the Move Activity Programme started?**

Satisfied Dissatisfied Don't know

9. **What is the MAIN reason that you were not (more) physically active before you started the Men on the Move Activity Programme? (Please tick (✓) the answer that applies)**

Not interested No facilities to exercise/be active Injury/disability/ medical condition

Interested but not willing to spend the time I am sufficiently active

No time to do it Other (Please specify) _____

Section E: General

1. How did you hear about the Programme?

Paper Radio On-line Friends Other (Please specify) _____

2. What motivated you to come to the Programme?

3. Please list the 3 most important things you hope to achieve from the Programme.

1. _____
2. _____
3. _____

4. Are you interested in attending any health information workshops in your local area?

Yes No (If yes, please answer Q. 5)

5. Please tick (✓) the sessions you are most likely to attend.

- | | | | |
|---|--------------------------|--------------------------------------|--------------------------|
| Exercise – Lowering your Health Risk | <input type="checkbox"/> | Stress Management & Relaxation | <input type="checkbox"/> |
| Maintaining Lifestyle Changes | <input type="checkbox"/> | Healthy Eating and Weight Management | <input type="checkbox"/> |
| Reducing the Risks Factors: Smoking; Blood Pressure, Cholesterol & Diabetes | | | <input type="checkbox"/> |
| Smokers Cessation Support | <input type="checkbox"/> | | |

Section F:

1. How many Men on the Move Activity sessions have you attended?

1-5 sessions 5-10 sessions More than 10 sessions

2. How has the Men on the Move Activity Programme influenced you to change your physical activity behaviour?

- 1. _____
- 2. _____
- 3. _____

3. Compared to your activity levels at the start of the study, would you say that NOW you are? (Please tick the box that applies)

	Before the Men on the Move
Much less active than you were then	
Less active	
About the same	
More active than you were then	
Much more active than you were then	

4. Name 3 things about the Men on the Move programme that are most important to you?

- 1. _____
- 2. _____
- 3. _____

5. What changes would you like to make to the Men on the Move Programme?

Thank you very much for your time and help with this questionnaire

Appendix 3: Cover Letter and End of Phase 1 Questionnaire



Men on the Move Activity Programme

Title of Study: *To evaluate the impact of Men on the Move Activity Programme, an initiative which aims is to increase the level of physical activity amongst men over 35 years of age.*

Researcher:

Lucia Canavan
Men on Move Programme,
St Mary's Headquarters, HSE, Castlebar, Co Mayo.
Mobile: 087 2249943 / Email: luciacanavan@gmail.com
09/05/2012

Dear Participant,

Thank you for your help in this study. The first stage of the Programme has now come to an end. We hope you have enjoyed and benefited from the physical activities of the last 8 weeks and we look forward to the next phase of the Programme.

In order to evaluate the impact of the Programme we need your feedback at this stage. Your participation in this study will help in the future planning and development of physical activity programmes offered in your community. This will in turn help to support men to become more physically active and to improve their overall health and quality of life.

Confidentiality

It is important to note that the study is totally confidential. Please do not write any identifying information on the questionnaire. The information collected will be stored in a confidential manner, and in line with best practice. In addition the data will only be accessed by the researcher. If you have any queries, please do not hesitate to contact me.

Your input is greatly appreciated.

With kind regards,

Lucia Canavan

Lucia Canavan

Mayo Sports Partnership



Comhpháirtíocht Spóirt Mhaigh Eo
An Irish Sports Council Initiative



West of Ireland Cardiac Foundation

Fighting Heart Disease & Stroke

Men on the Move Activity Programme
End of Phase 1
Questionnaire

Researcher: Lucia Canavan

B.Soc.Sc, MA (Health Promotion)

30th March 2012

Totally Confidential

Respondent Number:

General Health & Well-being

1. **In general would you say your health is?**

Excellent Very good Good Fair Poor

2. **How satisfied are you with your health?**

Very satisfied Satisfied Neither satisfied/dissatisfied Dissatisfied Very Dissatisfied

3. **Is your daily activity or work limited by anxiety, stress or depression?**

Not at all Slightly Moderately Quite a lot Extremely

4. **Do personal or emotional problems keep you from doing your usual work or daily activities?**

Not at all Very little Somewhat Quite a lot Can't participate in activities

5. **Do personal or emotional problems limit your social activities with your family or friends?**

Not at all Very little Somewhat Quite a lot Extremely

6. **Are you happy with the amount of energy you have?**

Yes No

7. **Are you a smoker?**

Yes No (If no please go to Q. 7)

8. **How much do you smoke per day?**

1 – 5 Cigarettes <input type="checkbox"/>	6 – 10 Cigarettes <input type="checkbox"/>
11 – 15 Cigarettes <input type="checkbox"/>	16 – 20 Cigarettes <input type="checkbox"/>
More than 20 Cigarettes <input type="checkbox"/>	Pipe or Cigars <input type="checkbox"/>

9. **Would you like to stop smoking (choose only one)**

No Yes, I am thinking of it
 Yes, I have made plans to stop Yes, I have tried to stop but did not succeed

10. **How often do you have a drink containing alcohol?**

Never Monthly or less 2-4 times a month Once a week
 2-3 times a week 4 or more times a week

11. **How many drinks containing alcohol do you have on a typical week (7 days)? _____**

12. **Are you actively trying to manage your weight?**

Yes No

1 Drink	1 Drink	1 Drink
½ pint beer etc.	1 single spirit	1 glass wine (125 ml/small glass)

Nutrition

1. How many portions of Fruit & Vegetables do you eat on a daily basis?

None 1 portion 2-3 portions 3-4 portion At least 5 or more portions

2. How many times a week do you eat oily fish? (e.g. Mackerel, Salmon, Sardines, Trout, Herring, Fresh Tuna, Pilchards)

Never Once a week Twice a week More than twice a week

3. How often do you eat lean red meat a week?

Daily 4-6 times a week 2-3 times a week Once a week Never

4. How often to you eat fried food (cooked on a pan with oil/butter etc.)?

Daily 4-6 times a week 2-3 times a week Once a week Never

5. How often do you add salt to food while cooking?

Always Usually Sometimes Rarely Never

Physical Activity

We are interested in finding out the kinds of physical activities that you are now doing since you started the Men on the Move Activity Programme. Please answer the questions based on the 7 day period in the last week.

Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house, yard and farm work, to get from place to place, and in your spare time for recreation, exercise or sport.

Vigorous Activity

1. Think about all the **vigorous** activities that you did **during the last 7 days**. **Vigorous** physical activities refer to activities that take hard physical effort and **make you breathe much harder than normal**. Think only about those physical activities that you did for at least 10 minutes at a time.

During the last 7 days, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?

_____ days per week

No vigorous physical activities → Skip to question 3

2. How much time did you usually spend doing **vigorous** physical activities on any one of those days? (In hours and/or minutes)

_____ hours per day

_____ minutes per day

Don't know/Not sure

Moderate Activities

3. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

During the last **7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

_____ **days per week**

No moderate physical activities → **Skip to question 5**

4. How much time did you usually spend doing **moderate** physical activities on any one of those days?
(In hours and/or minutes)

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

Walking

5. Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

During the last **7 days**, on how many days did you **walk** for at least 10 minutes at a time?

_____ **days per week**

No walking → **Skip to question 7**

6. How much time did you usually spend **walking** on any one of those days? (In hours and/or minutes)

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

Sitting

7. The last question is about the time you spent **sitting** on weekdays during the last **7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

During the last **7 days**, how much time did you spend sitting on a **week day**? (*In hours and/or minutes*)

_____ **hours per day**
_____ **minutes per day**

Don't know/Not sure

Additional Information

1. **How many Men on the Move Activity sessions have you attended? (Please fill in number attended out of total number of 16 sessions held over the last 8 weeks).**

Number of sessions: _____

2. **How has the Men on the Move Activity Programme influenced you to change your physical activity behaviour?**

3. Compared to your activity levels at the start of the study, would you say that NOW you are? (Please tick the box that applies)

	Before the Men on the Move
Much less active than you were then	
Less active	
About the same	
More active than you were then	
Much more active than you were then	

5. Name 3 things about the Men on the Move programme that are most important to you?

1. _____
2. _____
3. _____

6. What changes would you like to make to the Men on the Move Programme?

Thank you very much for your time and help with this questionnaire

Appendix 4: Cover Letter & End of Programme Questionnaire



Men on the Move Activity Programme

Title of Study: *To evaluate the impact of Men on the Move Activity Programme, an initiative which aims to increase the level of physical activity amongst men over 35 years of age.*

Researcher:

Lucia Canavan
Men on Move Programme,
St Mary's Headquarters, HSE, Castlebar, Co Mayo.
Mobile: 087 2249943 / Email: luciacanavan@gmail.com
10/07/2012

Dear Participant,

Thank you for your help in this study. Phase 2 of the Programme has now come to an end. We hope you have enjoyed and benefited from the physical activities in the Programme.

Even though you may not have participated in the last phase of the Programme, or only in a few sessions, we would still appreciate your feedback. In order to evaluate the impact of the Programme it's really important to return this questionnaire by return post.

We are also holding focus groups on the Tuesday 24th and Wednesday 25th July to provide an opportunity for you to tell us about your experience on the Programme. We are inviting participants to put their name forward for these groups. And finally I will be phoning you at the end of August (brief phone call) to find out how you are getting on since the Programme finished.

Thank you once again for your help. Your input is greatly appreciated. It will help in the future planning, development and funding of physical activity programmes offered in your community. This will in turn help to support men to become more physically active and to improve their overall health and quality of life.

With kind regards,

Lucia Canavan

Lucia Canavan

Mayo Sports Partnership



Comhpháirtíocht Spóirt Mhaigh Eo
An Irish Sports Council Initiative



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



West of Ireland Cardiac Foundation

Fighting Heart Disease & Stroke

Men on the Move Activity Programme
End of Programme
Questionnaire

Researcher: Lucia Canavan

B.Soc.Sc, MA (Health Promotion)

30th March 2012

Totally Confidential

Respondent Number:

General Health & Well-being

1. In general would you say your health is?

Excellent Very good Good Fair Poor

2. How satisfied are you with your health?

Very satisfied Satisfied Neither satisfied/dissatisfied Dissatisfied Very Dissatisfied

3. Is your daily activity or work limited by anxiety, stress or depression?

Not at all Slightly Moderately Quite a lot Extremely

4. Do personal or emotional problems keep you from doing your usual work or daily activities?

Not at all Very little Somewhat Quite a lot Can't participate in activities

5. Do personal or emotional problems limit your social activities with your family or friends?

Not at all Very little Somewhat Quite a lot Extremely

6. Are you happy with the amount of energy you have?

Yes No

7. Are you a smoker?

Yes No (If no please go to Q. 10)

8. How much do you smoke per day?

1 – 5 Cigarettes	<input type="checkbox"/>	6 – 10 Cigarettes	<input type="checkbox"/>
11 – 15 Cigarettes	<input type="checkbox"/>	16 – 20 Cigarettes	<input type="checkbox"/>
More than 20 Cigarettes	<input type="checkbox"/>	Pipe or Cigars	<input type="checkbox"/>

9. Would you like to stop smoking (choose only one)

No Yes, I am thinking of it
Yes, I have made plans to stop Yes, I have tried to stop but did not succeed

10. How often do you have a drink containing alcohol?

Never Monthly or less 2-4 times a month Once a week
2-3 times a week 4 or more times a week

13. How many drinks containing alcohol do you have on a typical week (7 days)? _____

14. Are you actively trying to manage your weight?
 Yes No

1 Drink	1 Drink	1 Drink
½ pint beer etc.	1 single spirit	1 glass wine (125 ml/small glass)

Nutrition

1. How many portions of Fruit & Vegetables do you eat on a daily basis?

None 1 portion 2-3 portions 3-4 portion At least 5 or more portions

2. How many times a week do you eat oily fish? (e.g. Mackerel, Salmon, Sardines, Trout, Herring, Fresh Tuna, Pilchards)

Never Once a week Twice a week More than twice a week

3. How often do you eat lean red meat a week?

Daily 4-6 times a week 2-3 times a week Once a week Never

4. How often to you eat fried food (cooked on a pan with oil/butter etc.)?

Daily 4-6 times a week 2-3 times a week Once a week Never

5. How often do you add salt to food while cooking?

Always Usually Sometimes Rarely Never

Physical Activity

We are interested in finding out the kinds of physical activities that you are now doing since you started the Men on the Move Activity Programme. Please answer the questions based on the 7 day period in the last week.

Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house, yard and farm work, to get from place to place, and in your spare time for recreation, exercise or sport.

Vigorous Activity

1. Think about all the **vigorous** activities that you did **during the last 7 days**. **Vigorous physical activities** refer to activities that take hard physical effort and **make you breathe much harder than normal**. Think only about those physical activities that you did for at least 10 minutes at a time.

During the last 7 days, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?

_____ **days per week**

No vigorous physical activities → *Skip to question 3*

2. How much time did you usually spend doing **vigorous** physical activities on any one of those days? (*In hours and/or minutes*)

_____ **hours per day**
_____ **minutes per day**

Don't know/Not sure

Moderate Activities

3. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

During the last **7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

_____ **days per week**

No moderate physical activities → *Skip to question 5*

4. How much time did you usually spend doing **moderate** physical activities on any one of those days? *(In hours and/or minutes)*

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

Walking

5. Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

During the last **7 days**, on how many days did you **walk** for at least 10 minutes at a time?

_____ **days per week**

No walking → *Skip to question 7*

6. How much time did you usually spend **walking** on any one of those days? *(In hours and/or minutes)*

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

Sitting

7. The last question is about the time you spent **sitting** on weekdays during the last **7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

During the last **7 days**, how much time did you spend sitting on a **week day**? (*In hours and/or minutes*)

_____ **hours per day**
_____ **minutes per day**

Don't know/Not sure

Additional Information

1. **How many Men on the Move Activity sessions have you attended in the second phase of the Programme?** (Please fill in number attended out of the total number of 16 sessions held over the last 8 weeks).

Number of sessions: _____

2. **What were your main reasons for not attending Men on the Move Phase 2 sessions?**

Work commitments Family commitments Holidays Other sport interests
Health reasons Injury Not interested

Other (Please specify) _____

3. **What are the main changes you have noticed in yourself as a result of taking part in the Men on the Move Programme?**

a) _____
b) _____
c) _____

4. This question is about any physical activity and lifestyle changes you may have made on the Programme (Please tick ✓ the boxes that apply to you).

	Agree	Disagree
I will continue with changes I have made on the Programme		
I am likely to continue with changes I have made on the Programme		
I am not going to continue with changes I have made on the Programme		
I have not made any changes on the Programme		

4. What type of support do you need to help you to remain active?

5. Are you interested in participating in a follow-on Programme to the Men on the Move in September, pending the availability of funding? (If no please go to Question 8)

Yes No

6. Would it be possible for you to contribute to the cost of the Men on the Move sessions? (If no please go to Question 8)

Yes No

7. How much per session would you be willing to pay?

€3 €5 €7

Other (Please specify) _____

8. Are there any changes you would make to the Programme?

9. Did you take part in the Men on the Move 5K Event in Castlebar?

Yes No

If yes, please let us know what you thought of this event.

10. We are interested in holding an event in September. What type of Event would you be interested in participating in?(Please tick all the events you are interested in)

5K 10K 20K Cycle 22K (1/2 Marathon Walk) Kayaking

Other (Please specify) _____

Thank you very much for your time and help with this questionnaire

Appendix 5: Interview & Focus Group Letters



Men on the Move Activity Programme

Men on Move Programme,
St Mary's Headquarters,
HSE, Castlebar,
Co Mayo.

12/07/2012

Dear _____,

Thank you for agreeing to meet to share your personal experience of the Men on the Move Programme. We really look forward to hearing your personal views and how you have benefited from the Programme.

The details are as follows:

Date: Wednesday 25th July
Time: 10.30am – 11.15am
Venue: Breaffy House Hotel, Castlebar

If you are unable to attend, I would appreciate if you could let me on as soon as possible on 087-2249943 or Email: luciacanavan@gmail.com.

Thank you once again for your help. Your input is very valuable and greatly appreciated

With kind regards,

Lucia Canavan

Lucia Canavan

(Researcher)



Men on the Move Activity Programme

Men on Move Programme,
St Mary's Headquarters,
HSE, Castlebar, Co Mayo.

11/07/2012

Dear _____,

Thank you for putting your name for selection for the Claremorris Focus Group. The purpose of the Focus Group is to provide an opportunity to share your personal experience of the Men on the Move Programme.

We are pleased to inform you that you have been randomly selected to participate in the Focus Group. We really look forward to hearing your personal views and how you have benefited from the Programme.

The details are as follows:

Date: Wednesday 25th July

Time: 7.30-8.30pm

Venue: McWilliam Hotel, Claremorris

If you are unable to attend, I would appreciate if you could let me on as soon as possible on 087-2249943 or email: luciacanavan@gmail.com

Thank you once again for your help. Your input is very valuable and greatly appreciated.

With kind regards,

Lucia Canavan

Lucia Canavan

(Researcher)

Appendix 6: Cover Letter and 6 Months follow-up Phone Administered Questionnaire

Mayo Sports Partnership



Comhpháirtíocht Spóirt Mhaigh Eo
An Irish Sports Council Initiative



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



West of Ireland Cardiac Foundation

Fighting Heart Disease & Stroke

Men on the Move Activity Programme

6 Months Post Baseline

Phone Administered Questionnaire

Researcher: Lucia Canavan

B.Soc.Sc, MA (Health Promotion)

September 2012

Totally Confidential

Respondent Number:

General Health & Well-being

1. How satisfied are you with your health? (On a 5 point scale ranging from)

Very satisfied Satisfied Neither satisfied or dissatisfied Dissatisfied Very Dissatisfied

2. Are you happy with the amount of energy you have?

Yes No Other: _____

3. Are you more aware of the benefits of Physical Activity since you took part in the Men on the Move Programme?

Yes No Other: _____

4. Do you feel confident now in your ability to exercise?

Yes No Other: _____

5. Are you taking part in any physically activities now?

Yes No (If no go to question 10) Other: _____

6. What type of activities are you participating in? (Interviewer please tick all that apply)

Walking Jogging Running Swimming Cycling Football

GAA Athletics Other (Please specify) _____

7. How many days a week do you exercise? _____

8. How long do you exercise for at each session? _____

9. Who do you exercise with? (Interviewer, please tick all that apply)

Friends Men on Move Colleagues Family Alone

Other (Please specify) _____

10. Have you joined any Groups/Clubs in your area since the Men on Move Programme finished? (Interviewer please tick all that apply)

- | | | | | | | | |
|--------------|--------------------------|----------------|--------------------------|-----------|--------------------------|----------------------|--------------------------|
| Fit for Life | <input type="checkbox"/> | Athletics Club | <input type="checkbox"/> | Local Gym | <input type="checkbox"/> | Local Leisure Centre | <input type="checkbox"/> |
| Rugby Club | <input type="checkbox"/> | Soccer Club | <input type="checkbox"/> | GAA Club | <input type="checkbox"/> | Cycling Club | <input type="checkbox"/> |
| Walking Club | <input type="checkbox"/> | Golf Club | <input type="checkbox"/> | | | | |
- Other (Please specify) _____

Physical Activity

Finally, I am going to ask you about the amount of physical activity that you are now doing since you finished the Men on the Move Activity Programme. Could you please answer the questions based on the 7 day period in the last week.

I would like you to think about each question even if you do not consider yourself to be an active person. Think about the activities you do at work, as part of your house, yard and farm work, to get from place to place, and in your spare time for recreation, exercise or sport.

We will start with Vigorous Activity

- 1. If you could think about all the *vigorous* activities that you did *during the last 7 days*. Again *vigorous* physical activities *ARE* activities that take hard physical effort and *make you breathe much harder than normal*, like heavy lifting, digging, aerobics, or fast bicycling. Think only about those physical activities that you did for at least 10 minutes at a time.**

During the last 7 days, on how many days did you do **vigorous** physical activities like I have just described?

_____ days per week

No vigorous physical activities → *Skip to question 3*

2. How much time did you usually spend doing **vigorous** physical activities on any one of those days? (*In hours and/or minutes*)

_____ **hours per day**
_____ **minutes per day**

Don't know/Not sure

Now I am going to ask you about Moderate Activities

3. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking. Think only about those physical activities that you did for at least 10 minutes at a time.

During the last **7 days**, on how many days did you **moderate** physical activities like I described.

_____ **days per week**

No moderate physical activities → **Skip to question 5**

4. How much time did you usually spend doing **moderate** physical activities on any one of those days? (*In hours and/or minutes*)

_____ **hours per day**
_____ **minutes per day**

Don't know/Not sure

And finally I like to ask you about Walking

5. Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

During the last **7 days**, on how many days did you **walk** for at least 10 minutes at a time?

_____ **days per week**

No walking **➔** *Skip to question 7*

6. How much time did you usually spend **walking** on any one of those days? (*In hours and/or minutes*)

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

7. **The final question in this section is about** the time you spent **sitting** on weekdays during the last **7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

During the last **7 days**, how much time did you spend sitting on a **week day**? (*In hours and/or minutes*)

_____ **hours per day**

_____ **minutes per day**

Don't know/Not sure

I would just like to say thank you very much for your time and help with this questionnaire and throughout the study.

And I wish you the best of luck with in the future.

Keep up the good work!