



Active Lives:

Physical Activity in Disadvantaged Communities

Full report

by Dr Simon Williams

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A copy of the summary report of the research is available from the Bevan Foundation.

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"The time has come for communities to become more committed and creative in developing ways to help residents of all ages and ethnic groups to increase their physical activity levels. Communities do not need another study to tell them that the prevalence of inactivity has reached epidemic levels across all subgroups of the population".

"From the public health perspective, environmental and policy changes are needed to build environments in our schools, communities, and workplaces that are more favorable to physical activity and would maximize the likelihood that walking will be maintained. People are easily discouraged if they do not have a safe, accessible, convenient place in which to be active. In the quest to convince individuals to become more active and healthy, communities need to do their part by creating more secure, "walkable" environments".

*Andrea Kriska, PhD
Striving for a More Active Community
American Journal of Preventive Medicine (2002).*

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1.0 INTRODUCTION

- 1.1 In 1954, Sir Richard Doll and his colleague Austin Bradford Hill first reported in the British Medical Journal that cigarette smoking was the principal cause of lung cancer (Doll and Hill, 1954). It has taken more than 50 years and considerable public debate for the countries of the UK to begin the process of restricting cigarette smoking in public places. As a result of a concerted public health campaign, there is widespread agreement amongst the population that cigarette smoking is extremely harmful. It is doubtful that the population view physical inactivity as being as harmful as cigarette smoking - although there is evidence to this effect (Powell *et al.*, 1987). Increasing physical activity remains, therefore, a considerable challenge to all public and private organisations that are responsible for this task. Every possible effort must be made to encourage at least the minimum amount of recommended physical activity by the vast majority of the population.
- 1.2 There is now substantial evidence that physical activity plays a key role in promoting good health. Despite this evidence, data suggest that only about 30% of adults in Wales meet the recommended level of physical activity (Welsh Assembly Government, 2005). The proportion of men who perform the recommended amount of activity (38%) is higher than the proportion of women (24%). In the older adult population this proportion falls to only 16%. Levels of physical activity in the South Wales valleys are particularly low and this is partly responsible for the high level of chronic ill-health experienced in this region. Amongst children and adolescents, aged 11, 13 and 15 years, physical activity is highest for 11-year olds (42%) compared to 13 year olds (38%) and 15 year olds (29%). The proportion of 15 year old girls achieving the recommended quantity of physical activity (18%) is alarmingly low (Parry-Langdon and Roberts, undated).
- 1.3 Although the actual barriers to physical activity participation are said to be well known, it is not clear – especially to those outside the health community who are seeking to promote physical activity – why levels of participation are so low, particularly in relatively disadvantaged areas like the South Wales valleys. Until these barriers are more fully described and understood, it is difficult for health promotion agencies to design and implement potentially successful initiatives. The information with respect to these barriers in groups such as those suffering with mental illness is particularly sparse.
- 1.4 As society and communities change, many of the barriers to physical activity are also likely to change. It is possible that some barriers are only relevant in the local context. For example there may be a particular problem with anti-social behaviour or vandalism to existing facilities.
- 1.5 There are many different policies, strategies and initiatives aimed at increasing physical activity across the wider population. Some of these are global, some are at the national level and some are local initiatives. It is not yet clear whether these are having the desired effect on physical activity and health in Wales. Furthermore, as more and more local physical activity initiatives emerge within the various regions of Wales, it is becoming increasingly important that following a thorough evaluation the findings are reported to ensure the dissemination of best practice.

2.0 AIMS, OBJECTIVES AND METHODS

- 2.1 The aim of this project was to identify ways that may facilitate the process of enabling adults living in disadvantaged communities to become more active.
- 2.2 The specific objectives are as follows:
- To summarise the existing evidence about overcoming barriers to physical activity
 - To explore the extent to which physical activity is being promoted and enabled in the South Wales valleys
 - To identify and interview those groups within these communities that are most at risk of leading sedentary lifestyles
 - To consider what more needs to be done to increase the levels of physical activity within selected disadvantaged communities
- 2.3 This project was undertaken in the unitary authority areas of Merthyr Tydfil, Torfaen and Caerphilly.
- 2.4 The project report contains the following elements:
- The identification and analysis of particular global and national strategies aimed at promoting physical activity.
 - A review of available literature on actual and perceived barriers to physical activity. This includes both the indoor and outdoor environments.
 - Analysis of interviews and focus groups conducted over several months with various community groups, service providers and key health professionals. The aim of this process was to provide evidence and opinion regarding real and perceived barriers to physical activity. A list of those people and groups who participated in these discussions is provided as an appendix.
 - Empirically derived conclusions and recommendations for the future promotion of physical activity in Wales, with particular reference to disadvantaged communities.
- 2.5 The authors of this report recognise that some of the barriers identified by both the stakeholder and community groups are well recognised and various local partnerships have attempted to address these barriers in different ways at various times. Furthermore, in a survey such as this there is recognition that some people will see it is an opportunity to promote a 'wish list'. However, the fact that these are still identified as barriers suggests that either:
- people are unaware of what is in place to help them overcome the barrier;
 - the initiative doesn't or hasn't worked in a way that helps;
 - certain ideas or perceptions, for example "a lack of time", will always be used as a reason for inactivity by some people;
 - nothing has been done to address the barrier.

It is hoped that some of the recommendations will be acted upon whilst others will be used for continued discussion and possibly as a platform for further research.

3.0 BACKGROUND

Physical Activity and Health – the Overwhelming Evidence in Favour of a Physically Active Lifestyle

- 3.1 The observation that physical activity reduces the risk of cardiovascular disease – still the leading cause of premature death and chronic ill-health – was first reported in the 1950's (Morris *et al.*, 1953). In this seminal work, Morris and colleagues were able to show that London bus conductors experienced approximately half the number of heart attacks in comparison to the bus drivers. Since this original paper, countless other publications have documented the inverse relationship between physical activity and chronic ill-health. In recent years, increased emphasis has been placed on the importance of physical inactivity as a major modifiable risk factor for several chronic diseases including obesity, type 2 diabetes mellitus, hypertension, cardiovascular disease (coronary artery disease, stroke and peripheral vascular disease), osteoporosis and cancer of the breast and colon. **For these disorders the evidence is strong, consistent and irrefutable.** For certain other conditions, for example chronic depression, there is some evidence that regular physical activity can also play an important beneficial role but this evidence is less convincing. The effect of physical activity and/or physical fitness on these chronic conditions has been the subject of many excellent reviews recently and the reader is directed to the following sources for greater information and analysis: Katzmarzyk, 2006; Hardman and Stensel, 2003.
- 3.2 The epidemiological evidence suggests that physical activity has a *dose-response* relationship with all-cause mortality, obesity, type 2 diabetes mellitus and coronary heart disease (CHD). The association of physical activity with osteoporosis is more complex as bone is only affected by weight-bearing activity and is region specific i.e. it is only those bones that are influenced by external forces that are influenced. Strong evidence suggests that weight-bearing physical activity plays a key role in promoting the normal growth and development of the healthy skeleton. The effect of exercise on the mature skeleton, however, is small. The effect is probably restricted to the maintenance of bone mineral density by a reduced rate of bone loss. Studies of various groups of athletes and of older subjects show that swimming has a negligible effect on bone density (Jacobson *et al.*, 1984; Orwoll *et al.*, 1987).
- 3.3 The positive association between physical activity and the reduced risk of obesity, type 2 diabetes and CHD is sufficiently strong, consistent and biologically plausible that it can be considered causal in nature. There are several mechanisms by which physical activity causes a reduction in CHD risk. These include a reduction in blood pressure, favourable alterations in the blood lipid and lipoprotein profile (decreased low-density lipoprotein cholesterol and triglycerides, increased high-density lipoprotein cholesterol, increased post-prandial lipid clearance, decreased number of atherogenic small, dense LDL particles and apoprotein B), decreased adiposity, enhanced insulin sensitivity, improved endothelial function and favourable changes in fibrinolysis, coagulation and inflammation (Hardman and Stensel, 2003).
- 3.4 Being overweight [a body mass index (BMI) >25.0 kg/m²] or obese (BMI > 30.0 kg/m²) are further complications of a sedentary lifestyle, significantly increase the

risk of type 2 diabetes, CVD, osteoarthritis, certain cancers, reproductive problems, depression and other forms of mental illness. When the obesity is abdominal in nature i.e. the increased fat deposition is concentrated in the abdominal cavity (visceral obesity), the risk of these complications is further increased. Physical activity is very important with regard to the prevention and treatment of overweight and obesity. Furthermore, regular aerobic exercise without dietary intervention has been shown to reduce visceral obesity and improve cardiovascular risk factors (Despres, 1997).

How Much Physical Activity is needed?

- 3.5 Data from several studies show that people who are physically active (i.e. they participate in ≥ 30 minutes of moderate-intensity physical activity most days of the week) or who have moderate to high levels of cardiorespiratory fitness (i.e. in the upper 80% of the fitness distribution for their age and sex) have significantly lower death rates from cardiovascular disease and all-cause mortality than people who are sedentary or who are unfit. This is also applicable to individuals who are overweight or obese (Stevens *et al.*, 2002; Blair and Brodney, 1999; Church *et al.*, 2004; Lee *et al.*, 1999; Wei *et al.*, 1999). Data from some studies also suggest that physical activity is important for preventing weight regain following successful weight loss (Saris *et al.*, 2003; Jakicic *et al.*, 2001). Thus, whilst weight loss is an important component of health promotion, the benefits of physical activity can be acquired by all individuals, not just those who lose weight. Weight loss is dependent upon a much higher volume of physical activity – probably 80 to 90 minutes per day. Evidence also suggests that the quantity of daily physical activity required for health improvement can be accumulated throughout the day. When multiple short bouts of activity (e.g. 10-minute bouts, 3 or 4 times per day) are compared to one bout of continuous activity (e.g. 30 to 40 minute bout, once per day), the multiple activity programme resulted in greater total daily activity time and greater adherence (Jakicic *et al.*, 1995). These findings support potentially important public health messages that should be included in physical activity promotion.

The Health of People in Wales

- 3.6 In general, in comparison to many other regions of the UK and Europe the health of people in Wales, particularly the South Wales Valleys is poor. Life expectancy in Wales is rising but good health is not evenly distributed across the population. Average life expectancy in some parts of Wales is 5 years less than in others and there are marked differences between different social groups (Welsh Assembly Government, 2002).
- 3.7 As outlined earlier, many major chronic disease conditions are influenced by physical activity. Age, ethnicity, gender, genetics and diet are the other major determinants of these diseases. In relation to many other parts of the United Kingdom, the health of people in Wales is poor. Results from the 2001 Census revealed that whilst two-thirds (66%) of people in Wales considered their health to be “good”, 12% of the population felt that their health was “not good”. This figure is higher than the comparable figure for England (9%). Between these categories, a further 22% of people in Wales reported that their health was only “fairly good” (Wales Centre for Health, 2005).

- 3.8 The 2001 Census revealed that in Wales, 5% of people in the age group 0-19 years reported having a long-term limiting illness. In the 20-59 year age group, this figure rose to 17.9% and in the over 60's, the figure was 54.4%.

The Health of People in the South Wales Valleys

- 3.9 Wales is a country of significant cultural and economic diversity. Furthermore, Wales is also a country of significant diversity in health. It is widely accepted that there is a strong relationship between social and economic deprivation and people's health. The National Public Health Service report on deprivation stated that "people living in the most deprived areas have worse health and health indicators than those in the most affluent areas" (NPHS, 2004). The areas in Wales with more people reporting their health to be "good" were Monmouthshire, the Vale of Glamorgan, Powys, Conwy, Denbighshire, areas of Gwynedd, Wrexham and South Flintshire. The lowest percentages of people reporting their health to be "good" were found in the South Wales valleys area and the coast of Flintshire (Wales Centre for Health, 2005). As expected, the areas with the highest proportions of the population reporting their health to be "not good" are the opposite. In the Welsh Health Survey (2003/04), 22% of respondents reported having coronary heart disease, 13% had respiratory illness, and 28% of people surveyed reported some form of long-term limiting illness (Welsh Assembly Government, 2004). In this survey, 26% of respondents were smokers, 41% drank alcohol above the advised level, 54% were overweight or obese but only 30% exercised regularly.
- 3.10 Of the 22 unitary authorities in Wales, Merthyr Tydfil, Blaenau Gwent, Rhondda Cynon Taff, Caerphilly, Neath Port Talbot and Torfaen are ranked 1 to 6 (1 being the worst) with regard to the proportion of their populations who responded as being "in good health". Approximately 15-20% of the people in these 6 unitary authorities report their health as being "not good" (Wales Centre for Health, 2005).
- 3.11 As stated previously, overweight and obesity are a particular cause for concern as they dramatically increase the risk of type 2 diabetes and cardiovascular disease (CVD). The prevalence of obesity is increasing in most countries of the developed world and many countries of the developing world. This increased obesity prevalence is likely to reverse the trend of decreasing CVD of recent years. Children and adolescents also experience the adverse health effects of obesity.
- 3.12 The prevalence of child and adolescent overweight and obesity in Wales is exceptionally high and in a comparison of 34 countries, only the USA and Malta were higher. The percentage of overweight and obese children and adolescents in Wales is approximately 17% and 5% (Janssen *et al.*, 2005). However, this is likely to be a significant underestimation as the figures are based upon self-reported heights and weights. Data from measured heights and weights of 459 children aged 11-14 years in the South Wales Valleys suggest that the prevalence of overweight and obesity are possibly as high as 23.7% and 8.3% respectively. The prevalence of abdominal obesity, defined as an age and sex specific waist girth >98th percentile, is approximately 20% (Retallick *et al.*, 2006).

- 3.13 Interestingly, a recent study from the United States has reported that the prevalence of child and adolescent obesity is significantly higher in community areas perceived to be unsafe by parents. Of the 768 children and their families who participated in the study, those who lived in the “least safe” neighbourhoods were four times more likely to be obese than those living in the “most safe” neighbourhoods (Lumeng *et al.*, 2006). One of the implications of this finding is that a greater understanding of the character of a child’s neighbourhood is required before making recommendations about lifestyle changes that include physical activity.
- 3.14 A large proportion of this ill-health is determined by unhealthy lifestyles - particularly poor diet and physical inactivity. This level of ill-health and decreased life-expectancy is unacceptable and points to long-term failings by people to adopt 'healthy lifestyles' and to inadequate public health messages and services. All possible efforts should be directed at dramatically improving the situation.

Physical Activity Recommendations within the Global and National Policy Context

- 3.15 The major policies and strategies for increasing physical activity in Wales are:
- (1) the World Health Report 2002 – Reducing Risks, Promoting Healthy Life;
 - (2) the World Health Organisation Global Strategy on Diet, Physical Activity and Health, 2004;
 - (3) Wales: a Better Country: The Strategic Agenda of the Welsh Assembly Government, 2003;
 - (4) Climbing Higher, the Welsh Assembly Government’s Strategy for Sport and Physical Activity, 2005;
 - (5) Framework for the Development of Sport and Physical Activity. From Strategy to Action. Sports Council for Wales, 2005.

‘Climbing Higher’ is set within the context of Health Challenge Wales in which the Assembly Government calls upon people and organisations in Wales to work together for a healthier nation.

- 3.16 The World Health Organisation (WHO) suggest that priority should be given to controlling those risks that are well known, common, substantial and widespread and for which effective and acceptable risk reduction strategies are available. The WHO also suggest that individuals should be empowered and encouraged to make positive life-enhancing health decisions for themselves on matters such as tobacco use, alcohol consumption, unhealthy diet, unsafe sex and physical inactivity.
- 3.17 The WHO Global Strategy on Diet, Physical Activity and Health states that unhealthy diets and physical inactivity are among the leading causes of the major non-communicable diseases such as type 2 diabetes, CVD and certain forms of cancer. This document also states that evidence shows that patterns of unhealthy behaviour and non-communicable diseases associated with them cluster among poor and disadvantaged communities and contribute to social and economic inequalities.
- 3.18 The WHO Global Strategy has four main objectives:

- To reduce the risk factors for non-communicable diseases that stem from unhealthy diets and physical inactivity by means of essential public health action and health-promoting and disease-preventing measures.
- To increase the overall awareness and understanding of the influences of diet and physical activity on health and of the positive impact of preventive interventions.
- To encourage the development, strengthening and implementation of global, regional, national and community policies and action plans to improve diets and increase physical activity that are sustainable, comprehensive, and actively engage all sectors, including civil society, the private sector and the media.
- To monitor scientific data and key influences on diet and physical activity; to support research in a broad spectrum of relevant areas, including evaluation of interventions; and to strengthen the human resources needed in this domain to enhance and sustain health.

This WHO Strategy recognises that different types and amounts of physical activity are required for different health outcomes. However, it strongly recommends that individuals engage in **at least 30-minutes of regular, moderate-intensity physical activity on most days and that this continues throughout life.**

3.19 Physical activity is a generic term that incorporates the following components:

- competitive and traditional sports such as rugby football, association football, cricket, netball, hockey etc;
- leisure-time pursuits such jogging, walking and hiking, gardening, recreational swimming and cycling;
- spontaneous play;
- opportunistic physical activity and active travel
- occupational and household chores and
- structured exercise such as using 'keep-fit' classes or gymnasias.

3.20 Whilst there is a dose-response relationship between physical activity and relative risk of several diseases, the reduction in risk is not restricted to leisure-time physical activity and structured exercise. Any form of physical activity that results in a significant elevation in metabolic rate is thought to confer benefit. For an 'average' person, walking at 4 mph expends about 400 kilocalories per hour. Thus, 5 hours of brisk walking accumulated over the course of one week can result in an energy expenditure of 2000 kilocalories – a level that is associated with a significant reduction in morbidity and mortality (Paffenberger *et al.*, 1986).

3.21 This WHO Strategy also puts forth the following three principles: (1) Community-based strategies need to be based on the best available scientific research and evidence; (2) Priority should be given to activities that have a positive impact on the poorest population groups and communities; (3) Physical activity strategies should be culturally appropriate as physical activity habits are often rooted in local and regional traditions.

3.22 **Wales: a Better Country - The Strategic Agenda of the Welsh Assembly Government** (2003) is the over-arching strategic agenda and vision of the Welsh Assembly Government. It has four main priorities:

- Helping more people into jobs
- Improving health
- Developing strong and safe communities
- Creating better jobs and skills; along with underpinning priorities of sustainable development, social inclusion and equality of opportunity

3.23 The Welsh Assembly Government's Strategy for Sport and Physical Activity is entitled ***Climbing Higher***. This is a 20 year strategy that sets out a range of ambitions for sport and physical activity. This document states:

“Wales will match the best global standards for levels of sport and physical activity, defined for adults, as at least 5 x 30 minutes of moderate intensity physical activity per week. To achieve this we need an annual increase in overall adult physical activity levels of at least one percentage point per annum”.

3.24 ***Climbing Higher*** also recommends that all children of primary age should participate in sport and physical activity for at least 60 minutes, 5 times per week and primary schools should provide a minimum of 2 hours of curriculum based sport and physical activity per week. At least 90% of boys and girls of secondary school age will participate in sport and physical activity for 60 minutes 5 times per week and secondary schools will provide a minimum of 2 hours curricular based and 1 hour extra-curricular based sport and physical activity per week.

3.24 Actions outlined by the Welsh Assembly Government to achieve these aims include:

- Changing the ways that people think and act, building physical activity back into daily life
- Encouraging play as an essential component for healthy development
- Encouraging mass participation in sport and physical activity by supporting activities that individuals and families can enjoy throughout life
- Ensuring that the acquisition of physical literacy is as important as the development of literacy and numeracy skills

In support of these aims, the Welsh Assembly Government has committed to a substantial financial investment into sport and physical activity that will amount to an increase of 250% from 1999 to 2007/8.

3.25 Health Challenge Wales (2003) sets out a vision whereby the state and its citizens work in partnership. The state provides affordable access to facilities within a framework of respect and encouragement, but the citizen and their family must take responsibility for the consequences of their own lifestyle.

3.26 The Sports Council for Wales' document entitled ***Framework for the Development of Sport and Physical Activity – From Strategy to Action*** sets out how SCW will work to deliver the aspirations outlined in ***Climbing Higher***.

3.27 In addition, Welsh unitary authorities working in partnership with several other agencies have strategies and initiatives aimed at increasing physical activity within

their areas, whilst Welsh Assembly Government sponsored bodies such as the Countryside Council for Wales (CCW) are also relevant in this context.

3.28 Wales is a country blessed with an abundance of natural countryside and open spaces. These represent a very valuable resource for increasing physical activity as they are physically accessible to most of the population and can be used for no financial cost. There are a wide variety of personal, social, environmental and economic benefits that can be gained by encouraging the more extensive use of a well-maintained and managed countryside (Woolley, 2003). Within the context of health and well-being, **brisk walking has the greatest potential for increasing overall physical activity levels of a previously sedentary population** (Hillsdon and Thorogood, 1996). 'Green exercise' or activity that takes place in natural environments may possibly have additional health benefits, particularly with regard to mental health (Pretty *et al.*, 2005). Walking is the most popular reason for visiting the countryside. Furthermore, 43% of all tourism trips to the countryside involve walking (Welsh Local Government Association and the Countryside Council for Wales, 2005) and walking is the main activity involved in the approximately 30 million visits to the Welsh countryside every year (Countryside Council for Wales, undated). CCW are now involved in numerous initiatives aimed at increasing public access to, and use of, the countryside, coastline, open spaces and parks. With regard to physical activity, by 2013 CCW specifically aims to:

- Confirm that 80% of the population have free and easy access to natural heritage close their homes.
- Show that 40% of people use the countryside and coast regularly for exercise.

4.0 BARRIERS TO PHYSICAL ACTIVITY

Determinants and Correlates of Physical Activity

- 4.1 A determinant is a variable that shows a clear **causal** relationship with a particular outcome in a longitudinal or experimental study. A correlate on the other hand refers to a variable that is simply associated with an outcome. A correlate may or may not prove to be a determinant. In the context of physical activity, serious illness that represents an absolute contraindication to strenuous activity is clearly a determinant of inactivity. Similarly, lack of availability of callisthenic classes is a clear determinant of participation in this activity. A greater knowledge and understanding of the determinants and correlates of physical activity should contribute to the development of more successful physical activity intervention programmes and lead to a reduction in sedentary behaviour.
- 4.2 There are a multitude of factors that influence whether members of society participate in physical activity to the fullest extent, engage at a lower level or remain on the periphery of being 'optimally' active, or remain inactive. These factors should be considered in the light of historical and societal changes (Sallis, Prochaska and Taylor, 2000).
- 4.3 In the model proposed by Sallis, Prochaska and Taylor (2000), the variables associated with physical activity in young people are categorised into five groups:
- *Biological and demographic variables*, for example, parental obesity and age
 - *Psychological, cognitive and emotional variables*, for example, self-efficacy and expected benefits
 - *Behavioural variables*, for example, using the internet, watching TV and playing computer games
 - *Social and cultural variables*, for example, parental modelling and local traditions
 - *Physical environmental variables*, for example, access to sport facilities and safe streets, parks and play spaces
- 4.4 In a review of studies of young people aged 13 to 18 years in the United States, Sallis, Prochaska and Taylor (2000) reported that the following factors were consistently associated with higher levels of physical activity:
- Being a young, white male
 - Having a personality that was achievement oriented and sensation seeking
 - An intention to be active
 - Having a past history of participating in sport in the community
 - Significant parental support, support from 'significant' others and a high level of sibling physical activity
 - Opportunities to exercise in the physical environment

Factors that were negatively associated with physical activity included:

- Adolescence, especially in females
- Psychological depression
- High levels of sedentary behaviour after school and on weekends

Surprisingly, socio-economic status, perceived barriers, self-esteem, alcohol use, parental physical activity level and the influence of the sports media were unrelated to physical activity. For a more detailed discussion of the barriers to participation in physical activity in young people refer to Sallis, Prochaska and Taylor (2000) or Brettschneider and Naul (2004).

- 4.5 The multitude of factors that induce adults to initiate and maintain programs of physical activity have been divided into those that are invariable (age, gender, race, ethnicity) and those that are presumed to be modifiable (behavioural and personality characteristics, environmental circumstances and community settings) (Seefeldt *et al.*, 2002).
- 4.6 Many people are of the opinion that physical activity relates only to sport and exercise and do not appreciate that everyday activity can also be classed as leisure-based physical activity. However, most people have some awareness of the positive and health benefits of physical activity. Therefore, there must be other reasons as to why people, particularly those from disadvantaged communities or groups, for example, those from a low socioeconomic standing, females, older people and those with physical and mental disabilities, and ethnic minorities, are still failing to meet this basic requirement of physical activity. These barriers explain the often limited and sporadic results from the agencies that put initiatives in place.

Environmental Factors

- 4.7 Often people will cite that they opt-out of physical activity due to issues relating to the environments they occupy and the way they exist within these environments.
- 4.8 The Department of Health's Choosing Activity plan (2005) highlights the need for all to have access to safe, well-maintained walking and cycling routes, attractive and affordable leisure and sports facilities, playgrounds, parks and the countryside.
- 4.9 Many people feel that their neighbourhoods and local areas are not safe; particularly those in perceived higher crime areas and perhaps where lighting is not sufficient or the roads do not appear safe. This issue can be influenced more so by the weather and time of year - people feeling less inclined to venture outdoors for a walk in the depth of winter. This may be especially true for more deprived areas or those in a rural setting where isolation is greater and thus there may be less access to facilities or initiatives in place (Troost *et al.*, 2002).
- 4.10 A barrier to sports and/or indoor activity that is frequently mentioned concerns inappropriate or non-existent facilities and resources. This can be a problem in those more disadvantaged areas where the quality of provisions can often be considered poor and inadequate. For safety and aesthetic reasons, it may also be that for some people the outdoor environment does not seem a suitable place in which they could go for a walk.

4.11 Several studies have considered physical activity in the countryside or ‘open spaces’, including the use of woodland, and have concluded that “neglect” of these valuable resources and/or “fear” of using them are ranked as the most important barriers (Hickey, 2003; Mostyn, 1979; Anonymous, 1999; O’Brien, 2005; Burgess, 1995; Ward-Thompson *et al.*, 2004; O’Brien and Tabbush *et al.*, 2005). Specifically these barriers can be summarised as follows:

- Neglected or poorly maintained environment, including overgrown vegetation
- Lack of appropriate signage and information leading to fears of trespassing
- Inappropriate access and/or secure car parking facilities
- Personal abuse and abuse of the environment and fear of encountering the perpetrators of these behaviours
- Feelings of vulnerability and that the environment is unsafe and could lead to injury
- Women are anxious about the possibility of being assaulted; men are anxious about their partners and children and also that others may perceive them as threatening

These studies, however, also highlighted many of the positive or motivating factors associated with the use of the countryside and open spaces. These are also summarised below:

- The provision of ‘high quality’ public spaces
- Provision of spaces for social gathering
- Reduced influence of traffic
- The provision of quality and secure parking spaces
- Ensuring the site is open, accessible, welcoming and well maintained
- The provision of led walks that alleviates the fears of getting lost and of becoming a victim of crime
- Programmes of regular, well advertised events
- A management presence, for example, a Ranger

4.12 Having friends who participate regularly in physical activity, safe footpaths for walking and access to a park were significantly associated with regular physical activity in a study of older people (Booth *et al.*, 2000).

4.13 The need for private transport is compounded by the poor and sometimes lacking provision of public transport, which renders many sporting and recreational facilities inaccessible to certain sectors of the population. Accessibility of facilities, opportunities for physical activity and aesthetic characteristics of the local environment are also associated with physical activity among adults.

4.14 In Merthyr Tydfil, the Planning for Real consultation exercise highlighted a number of important findings. Anti-social behaviour such as speeding traffic and joyriding, drug and alcohol abuse, and vandalism were all seen as deterrents to physical activity, especially in the older members of the community (Ward, 2001). Inadequate community safety and an environment affected by rubbish, dog faeces and general untidiness were also viewed as deterrents to walking, cycling and the use of playing fields.

- 4.15 As part of the Walking the Way to Health initiative in England and Scotland, an analysis of responses from participants showed that concern about personal safety was the most commonly cited reason for reduced levels of neighbourhood walking (Dawson *et al.*, 2006). This response was more prevalent amongst women (36.4%) than men (15.5%). Not having someone to walk with was the second most frequently cited reason for not walking. Interestingly, the majority of individuals (73%) who participated in these led walks were female, relatively well educated, affluent, young-old (aged 65 to 74) and retired.
- 4.16 A recent survey in Communities First areas in Rhondda Cynon Taff included 27 interviews with key stakeholders, 12 focus group discussions and 221 individual questionnaire responses (Clement *et al.*, 2005). The most frequently cited reason for inactivity was that there was nothing in the area that was particularly appealing. People also cited poor quality facilities and a lack of qualified instructors as barriers. Some areas were perceived to be ‘no go areas’, particularly for children, as they were affected by anti-social behaviour, drug use and crime.

Issues of Confidence (Self-efficacy) and Physical Awareness

- 4.17 Physical activity self-efficacy (a person’s confidence in his or her ability to be physically active on a regular basis) has emerged as the most consistent correlate of physical activity behaviour (Stewart *et al.*, 2002).
- 4.18 Many people do not see physical activity as something that is of importance in their lives. They may have other more pressing issues and do not realise the positive benefits exercise can have on health and confidence and the necessity to remain active. Also, they may not have the support needed to encourage them to be active, to enter different arenas and to experience different situations. Those reporting low levels of social support from either family or friends were 23-55% more likely to be insufficiently active for health benefits than were those reporting high levels of support (Stewart *et al.*, 2002).
- 4.19 A lack of physical fitness is another reason why some people do not take part in physical activity. This lack of fitness makes even the most basic physical task seem tiring and leads to feelings of discomfort and fatigue. This can be a significant issue which leads most detrimentally to a ‘catch 22’ situation regarding the amount of activity taken and the negative effects on health. This is probably a particularly relevant issue in the overweight and obese.
- 4.20 A final issue related to self-efficacy is the fact that many people have a lack of enthusiasm and motivation when it comes to being active on a regular basis. It is likely that many people start an activity regime and then lose interest once immediate results do not become apparent. This is a problem that affects all areas of activity and means that campaigns need to look for interesting and approachable ways in which to promote their initiatives.
- 4.21 In the original Canada Fitness Survey (1983), a lack of interest, motivation and encouragement ranked second only to a lack of time as the major barrier to physical activity. Twenty-seven percent of males and 37% of females reported being “too

lazy” or “lacking energy” as an obstacle. Interestingly, this survey divided respondents into active and inactive, and although the same barriers existed in both groups, a lack of interest and motivation was more prevalent amongst the inactive group (30% v 22%). Thirty-two percent of the inactive group reported that nothing would increase their activity level (cited in Wankel, 1988).

- 4.22 In the recent RCT Survey (Clement *et al.*, 2005), a significant number of respondents suggested that they had no interest in sport and exercise. The reason for this lack of interest was often cited as being not having enough time or money or that people felt they were active enough in their occupation.

Lack of Time and Work Commitments

- 4.23 A lack of time was by far the most frequently cited reason for inactivity in the Canada Fitness Survey (1983). Although lack of time is the most consistent and frequently reported obstacle, it may well be a rationalisation rather than a reality (Wankel, 1988).
- 4.24 The observation that there is not enough time is very common and probably reflects the rationalisation of priorities rather than a real lack of time. People who exercise probably have no more time than those who do not – however, they make a choice to prioritise physical activity. In this regard it is interesting that several epidemiological studies have reported that the number of hours spent viewing television is associated with an increased relative risk of obesity and type 2 diabetes. Some people in these studies fall into a category of watching more than 6 hours of television viewing per day. Surveys consistently show that television viewing is one of the most popular leisure-time pursuits. The degree of enjoyment associated with television viewing, however, is low in comparison to other leisure-time pursuits (Csikszentmihalyi and Larson, 1984). These findings suggest that for some individuals, the best way of facilitating a more active lifestyle might be education and self-reflection about the way in which precious leisure-time is used and time management training.
- 4.25 A perceived lack of time is also the principal and most prevalent reason given for dropping out of supervised clinical and community exercise programmes (Morgan, 1997).
- 4.26 Increasingly, people are finding themselves working longer hours and to more complicated schedules. Furthermore, the number of occupations requiring a high level of physical activity is now negligible. Thus, the lack of time combined with the level of activity in many jobs has created an inactive working society. The long hours that many people face in their occupations make it harder for activity to be maintained. This has been addressed somewhat by work-based fitness programmes. However, these programmes tend to be available exclusively to white-collar workers and senior company executives. They are unlikely to impinge upon the lives of people who live in disadvantaged communities.
- 4.27 However, the Department of Health’s Choosing Activity paper (2005) incorporated the workplace as a significant place in which to promote a healthier way of life as over half of the population in the UK are currently in some form of employment.

- 4.28 For those from less advantaged backgrounds, occupations may entail heavy physical work or monotonous working periods leaving little room for outside leisure pursuits.

Ageing

- 4.29 In relation to this information it must be understood that as people age, activity of all forms tends to decrease. However, it is often the preconceptions regarding age and the limits this may put upon people that can lead to inactivity in older people. The UK Time Use Survey (2002) highlighted factors such as the availability of the internet and home delivery as responsible for creating a situation whereby it is not as necessary for people to leave the house as it once was which may relate more particularly to older members of our society. The situation can be compounded by seemingly well-intentioned members of the family who take over many of the more physically demanding everyday tasks.
- 4.30 Older adults are more likely to yield to social perceptions that physical activity is a youthful endeavour that lacks the proper decorum for them (Seefeldt, 2002).
- 4.31 In the absence of illness and disability, it is not clear why some elderly people remain very active and others become very inactive. However, according to the Department of Health's Choosing Activity paper (2005) there is a significant decline in activity after the age of 35 and a further decline as age progresses.
- 4.32 As people get older then quite often their social circle decreases with increased illness and death among friends. Thus, the friends and family they once relied on to maintain activity may no longer be an option.
- 4.33 Older people may also have less disposable income to spend on pursuing leisure activities, especially those that exist purely on the basic state pension. However, many would argue that older people have more time in which to keep active and to join various groups and activities which often do not require much monetary input.
- 4.34 Another factor may be that older people are not as educated about the benefits of regular exercise and thus do not participate as readily. To some, exercise may seem as something that is not suitable for older people and it may be viewed as detrimental to their health. The elderly may have a fear of getting active and an unwillingness to try something new.

Gender Issues

- 4.35 For women, work and family life are often combined leaving less time and energy to pursue a physical activity routine themselves. As the woman is often also the caregiver and the one doing housework it leaves little room for other pursuits (Napolitano *et al*, 2000)
- 4.36 It is a well researched and documented fact that gender influences physical activity. However, when activity is measured it may be inaccurate as women can be seen to do more physical activity in the house and home, particularly in lower

socioeconomic areas. However, when related to sport as a form of physical activity, it has been widely reported that women on the whole do less of this form of exercise than males at all ages and backgrounds. The reason for this lack of participation in exercise may lie with the early experiences with sport and activity that females encounter while in the school environment. Often the emphasis on physical education as a lifelong aspiration will not have been there and thus, females from a young age will start down a path of disengagement and disinterest in these matters.

- 4.37 Many women do not feel that sport and activity relates to them and they often find it hard to enter into regimes of physical activity. Barriers to physical activity in women include limitations imposed by marriage, a partner or childcare responsibilities. This may be particularly true in lower socioeconomic areas.
- 4.38 Disadvantaged women are less apt to follow beneficial health regimes. They exercise less, smoke more, and are often overweight (Quinney, 1994).
- 4.39 However, issues related to gender bias tend to affect all age groups and all social standings. Thus, disadvantaged women are a group that should be targeted as particularly lacking in opportunities, encouragement and motivation to enter into sport or activity. It can be seen that without active participation and encouragement from an early age, women may become increasingly isolated from activity at later stages in their life.
- 4.40 The responsibility as the main caregiver which can lead to inactivity could be avoided by providing childcare facilities and combining activities for adults with children as well making the situation much more manageable.
- 4.41 The juggling of the family and work commitments may also mean that women have less spare time and energy to begin to exercise or become more active. Also, feelings of inadequacy and doubt can mean that women do not feel confident taking part in activity, particularly in formerly male dominated pursuits.
- 4.42 It is often argued that women, who are likely to have domestic responsibilities in addition to vocational work, encounter more barriers to activity than men (Anderson, 2003).

Socioeconomic Status

- 4.43 Another factor that would seem to influence whether or not people are physically active is socioeconomic standing. Socioeconomic status, occupational status, and educational attainment are consistent determinants of physical activity behaviour (Stewart *et al*, 2002).
- 4.44 Low socioeconomic status is often associated with caregiver responsibilities, time devoted to childcare, physical labour as an occupation, lack of transportation, unsafe neighbourhoods, inflexible work schedules and transient domiciles. Certain social environments may have a low regard for physical activity (Seefeldt *et al*, 2002).

- 4.45 People often view spending money on going to the gym or taking part in an aerobic session as an added expense that does not financially make sense and thus can be viewed as somewhat of a luxury. This is particularly true in families that have less disposable income and therefore would view these activities as not necessary in relation to other expenditure.
- 4.46 Providing programmes with a fixed length prohibits people on low incomes from joining the programme because they might not, for example, be able to afford 10 weeks (Quinney, 1994).
- 4.47 Many families may also have more dependants and this combined with lower socioeconomic standing may dictate lesser activity in this area. Often in these family groups there is less of an egalitarian structure in relation to childcare duties and household chores and thus gender would seem to be an issue once again (Bengoechea *et al.*, 2005).
- 4.48 Another issue that may affect those in the lower socio-economic bracket is unemployment. According to the Walking the Way to Health guidelines, being unemployed generally results in a more sedentary lifestyle, particularly for men. This is paradoxical when one considers that lack of time is frequently cited as the leading barrier to physical activity and emphasises the complexity of the inter-relationships between all these factors.
- 4.49 Also, many of the occupations in this area will be focused more on manual labour thereby leaving less room or inclination for individuals to take part in any additional activity that are not necessary to their lives. However, reasons such as having a lack of funds do not necessarily fully expose the lack of physical activity in these lower socioeconomic groups, rather it merely states that those activities that require regular monetary expenditure such as going to the gym and sport participation may be less accessible to these groups. This, however, does not mean that these groups should be seen as more inclined to be sedentary as a whole.

Commitments to the Family

- 4.50 The family and the manner in which it can impact on physical activity can be useful when viewing the way this has an affect on certain groups in society. Families as a whole can be one of the key reasons as to the participation into activity. As a family unit this usually dictates whether members enter into a healthy relationship with exercise and activity or become more sedentary over time.
- 4.51 The family can instil from an early age the need to be active and remain active in order to combat health problems and promote self-confidence and social skills. This way activity will be more likely to continue throughout the lifespan.
- 4.52 Past exercise behaviour or exercise habit has emerged as a consistent predictor of current activity status (Stewart *et al.*, 2002).
- 4.53 The family can provide the encouragement needed to enter into a healthy lifestyle or on the other hand it can be guilty of limiting the involvement in physical activity. This is particularly true when looking at those areas involving individuals from more

disadvantaged areas whereby lack of resources and gender stereotypes may be more pronounced. These types of families tend to be more gender affected with women holding down the majority of childcare commitments. The family can instil a healthy attitude towards activity or it can begin a downward spiral whereby the parent's lifestyle affects the children and so on.

- 4.54 Societal and familial support can be important factors in activity participation. Continued involvement in activity programmes, including cardiac rehabilitation programmes, is related to support and encouragement from family members. In the Canada Fitness Survey (1983), 20% of respondents stated that interest from a family member would encourage them to be more active.

The Impact of Health and Education

- 4.55 A more problematic and serious issue that arises when looking at levels of physical activity is that which is pertaining to health matters.
- 4.56 It is very likely that those people suffering from any kind of health difficulty or disability will find it harder to enter into a regime of physical activity, even though it is often encouraged by the health profession as beneficiary to the individual. There is still the fear that activity may further impede recovery or increase the problem.
- 4.57 Health problems such as muscle diseases and heart disease generally improve with physical activity but these may be the areas affected most by this attitude to activity.
- 4.58 It is widely known that those groups in our society residing in disadvantaged areas suffer from the worst health due to poor diet, bad housing and the issues of lack of activity. This makes these groups at the most risk of being isolated from activity and the social benefits this can bring.
- 4.59 Many people who do not appear to be active may have injury from previous participation or fear of such injury. This can be a problem when promoting activity.
- 4.60 Injury was the most common reason given for the most recent relapse from exercise in one investigation (Morgan, 1997).
- 4.61 The inter-related factors of education, occupation and income are all related to physical activity. Several surveys have shown that as the level of educational attainment increases then so to does the level of physical activity. In the Canada Fitness Survey (1983), for example, the following percentages applied to those who reported being regularly physically active: those with a university degree, 63%; those with a college certificate or diploma, 58%; those with a secondary education, 56%; and those with an elementary education, 41%. Sixty percent of people in managerial professional occupations reported themselves to be regularly active, compared to 53% of white-collar workers and 48% of blue-collar workers.
- 4.62 The 1980 Gallup Poll (cited in Wankel, 1988) described the typical active individual in the following way...

“Those most likely to say they exercise daily are basically the up-scale socioeconomic groups, the college educated, those in the upper and upper-middle income brackets, and professional, business people, and others in white collar positions. In addition, young people (under 30 years old) are more likely to say they exercise than are their elders, men are more likely than women...”

- 4.63 Surveys have consistently shown that people participate in physical activity for two main reasons – health and/or enjoyment. Which of the two is more important depends on the individual and the type of programme offered probably attracts people with different priorities.
- 4.64 The initial reasons for joining a programme, however, may be different to the reasons for continuing. Initial involvement is usually related to an aspiration for health improvement. Continued involvement is generally determined by enjoyment, convenience and social support (Wankel, 1983).
- 4.65 Despite the various educational campaigns aimed at enhancing people’s knowledge of the health benefits of physical activity, the recent survey carried out in RCT (Clement *et al.*, 2004) questions the effectiveness of these campaigns. This survey was performed in disadvantaged communities and whether a similar result would be found in more affluent communities remains to be established. When questioned directly about the health benefits of physical activity, only 77% recognised that active people were less prone to CVD and this figure fell to just 47%, 26% and 25% for osteoporosis, stroke and type 2 diabetes, respectively. This suggests that more needs to be done to engage educationally with people in disadvantaged communities.

Ethnicity and cultural differences

- 4.66 Physical activity levels are often very low within ethnic minority populations. This may be due to a lack of emphasis on physical activity in certain cultures and a lack of knowledge about the benefits of physical activity.
- 4.67 Within certain ethnic groups there is often more emphasis placed upon academic success and career enhancement than the need to be active and this impacts upon health status. Therefore, more is needed to be done at earlier stages to incorporate those from ethnic minority backgrounds into activity.
- 4.68 The roles of early experience, ethnicity, and support groups are considered as factors in the initiation of compliance with prescribed, structured and leisure-time physical activity programs (Seedfeldt *et al.*, 2002).
- 4.69 Within ethnic minority groups women may be very inactive. This could be due to issues of gender bias that are prevalent within certain cultures and the importance placed on the women’s role in the home - taking the responsibility of childcare commitments and household chores.
- 4.70 Certain ethnic groups may exist solely within the family circle and thus may not see the importance that physical activity can have on confidence and social status.

- 4.71 Investigators who have focused on problems associated with initiation, compliance and adherence to programmes of structured physical activity have learned that the stimuli to become and remain active are determined by numerous factors, many of which are culturally based (Seefeldt *et al.*, 2002).
- 4.72 The Health of Minority Ethnic Groups (1999) measured participation in physical activity among the main minority ethnic groups in England. The survey found that compared with the general population, South Asian and Chinese men and women were much less likely to participate in physical activities. Bangladeshi men and women had the lowest level of physical activity: they were almost twice as likely as the general population to be classified as sedentary.

Disability and Mental Health

- 4.73 People with disabilities are also one of the key groups that suffer from a lack of physical activity. This may be due to their physical status or, in the case of certain mental illnesses, the cognitive ability to understand the benefits of regular exercise (Quinney *et al.*, 1994).
- 4.74 Disabled people may be housebound or find it difficult to be mobile. This means they are a very vulnerable group in relation to health and physical activity.
- 4.75 People with disabilities may also find it harder integrating themselves into activity as many sports and activities may seem difficult to venture into due to the physical demands it may place on them.
- 4.76 Also, for those people with disabilities who are unable to work, finances may mean they cannot afford to take part in leisure activity and, therefore, may not be as likely to participate in these kinds of activities.
- 4.77 The medication that some people with ill health or disabilities may need to take may also reduce their ability to be involved in these activities. For example, several atypical antipsychotic drugs are associated with lethargy and weight gain (Keck and McElroy, 2003).
- 4.78 Those suffering from mental illness may also become increasingly isolated as these individuals will face issues of bias and ignorance in most areas of their life. This makes joining a fitness club or getting involved in a walking group more difficult due to the isolating nature of the disease.

Transitional Stages

- 4.79 There are a number of transitional stages that occur in an individual's life that may be important in our understanding of the loss or lack of physical activity.
- 4.80 Physical activity behaviour is influenced by a variety of social variables and role models, the relative significance of which changes as young people progress through childhood and adolescence (Armstrong and Welsman, 1997).

- 4.81 It is understood that the changes from school to college, child to teenager, and teenager to adult, have an impact on the amount of physical activity that is performed. The first of these influential stages occurs when children of primary school age transfer to secondary school education and thus loss of activity may happen depending on the activities offered by the secondary school. That is why such importance is placed on monitoring and improving the way children receive physical education.
- 4.82 Other important transitional stages can occur when an individual who is single transfers to someone who has a family, job and thus more responsibility and time consuming influences. However, it would seem that this change does not necessarily impact negatively upon physical activity. The transition from a single to a married state resulted in significant positive changes in physical activity relative to individuals remaining single (Stewart, 2002).
- 4.83 Other social influences, such as friendships and peer pressure may mean that physical activity becomes less of an influence and this can result in a downhill battle to get active again.
- 4.84 Also, the transition from school to college or university can have a profound effect with less emphasis on physical activity and a freedom to make decisions about the amount of activity undertaken and the diet consumed, this is also influenced by social factors, such as new friendships, increased drinking and socialising and pressure of workload.

5.0 MAIN ISSUES FROM INTERVIEWS WITH KEY STAKEHOLDERS

- 5.1 Over a period of several months a number of interviews were held with a wide range of groups and individuals who are described here as *key stakeholders*. Participants in these discussions represented various local authority departments, voluntary groups and health services. The following section highlights some key areas that impact upon the implementation and delivery of physical activity from a public health perspective. At the request of some individuals, care has been taken to assure anonymity in the dissemination of these discussions.
- 5.2 Those stakeholders and physical activity providers interviewed in all three of the areas consisted of a range of local authority employees, community first representatives, exercise professionals, walking group co-ordinators, mental health specialists and public health professionals. The areas covered within the interviews for these individuals and groups varied according to the nature of the groups' involvement in the community. The areas that the interviews covered included community awareness, policy and initiative effectiveness, communication and partnership working, availability of resources and funding, training and qualifications, facilities and organisations, evaluative measures, and barriers to participation.
- 5.3 Those community groups utilised for the focus group interviews consisted of mother and toddler groups, mental health groups, elderly or retired groups, and also some groups already active, for example, those attending exercise referral schemes. The areas covered with these particular interviews and focus groups also varied according to the group but mainly looked at the importance of physical activity, current activity levels, financial issues, availability of resources and facilities, crime and anti-social behaviour, health benefits, children and childcare, body image and self confidence, social benefits and accessibility of facilities in the area.
- 5.4 **Partnership working:** There are many benefits from cross-cutting physical activity policy as it should provide a mechanism to bring together various initiatives, share evidence-based practice and explore potential project work, whilst limiting the possibility of duplication. Cross-cutting policy is about recognising that population physical activity can be affected by the policies of many local authority departments and community organisations. However, some of these departments may not traditionally have considered part of their role as being health/physical activity promotion. For example, walking to school is widely advocated as a means of increasing physical activity in young people. However, there are occasions where educational policy, driven by financial constraints, has resulted in the closure of smaller schools that were within walking distance for parents and children. These schools have been replaced by larger 'super' schools that are not within walking distance. There may well be educational benefits from this but the result is the removal of an opportunity for physical activity.
- 5.5 A good example of where this sort of partnership working breaks-down was seen in Caerphilly. Here, an aerobics class costing £2 per person typically attracted about

10 people per session. The class eventually terminated because the instructor was asked to pay £14 for the hire of the hall.

- 5.6 Much of policy development has been at the level of organisational working rather than at the level of local partnerships. Some interviewees expressed the opinion that there seems to be an assumption that if organisational partnership policies are established, then local partnerships between a range of traditionally separate professions (e.g. countryside, town planning, transport, leisure, education & health) will fall into place. When working at a local level this sometimes leaves partners involved in the promotion of physical activity confused about different organisational styles of working and a lack of clarity of roles and responsibilities of each partner organisation. So, whilst at a national level many of these organisations are committed to working together, it isn't so easy to make this happen locally. This has been witnessed to have been the case for co-coordinators for some of the exercise schemes in the local areas. Much of the funding and input is the result of many different health groups and local authorities combining to build the programmes. This has in the past resulted in issues of miscommunication and a constant need for updating and a reliance on paperwork.
- 5.7 **Policy detail and operational guidance:** Some interviewees involved in the delivery of physical activity policy expressed the opinion that there is often a distinct lack of operational guidance in order to implement the physical activity agenda. In particular, national policies do not identify evidence of effectiveness and demonstrate little research to guide the promotion of physical activity amongst deprived and socially excluded groups. What tends to occur is that activities are placed in the *geographical* areas that are identified as having the greatest need (i.e. communities with marked social and economic deprivation) and then the assumption is made that because of this, the take-up demographic is similar to the community in which the initiative is sited. One way to overcome this problem is to create an appropriate way to improve opportunities for local practitioners, policy makers and research to work more collaboratively.
- 5.8 **Funding arrangements for physical activity:** There was great concern about the current trend for short-term funding coupled with the need for more formal sustainability planning. The vast majority of physical activity initiatives are of a short term nature. Many projects, schemes and opportunities exist for between 1 and 5 years in duration. The reality for many professionals working in physical activity delivery and promotion is that short-term funding and short-term contracts lead to low morale and an almost constant search for new employment opportunities. For example, one senior professional with responsibility for community health and social well-being stated that approximately 20 people, about 50% of this particular health 'team', had less than 18 months of their contract remaining and would understandably be seeking alternative employment. The overwhelming feelings amongst interviewees was that:
- (1) there needs to be a significant cultural change toward becoming a more physically active population – this will be difficult to achieve with inadequate funding and short-term planning;
 - (2) increasing physical activity is still not given the high priority it deserves and
 - (3) health service spending is disproportionately directed to health services and

treatment rather than prevention. The preventative measures in place were viewed by most as insignificant compared to the need that existed.

- 5.9 **Lack of funding and training opportunities:** Exercise referral schemes and community (Phase IV) exercise rehabilitation are important components of exercise provision for people for whom ill-health and fear of exercise-related complications and/or injury are real barriers to beginning an exercise programme. The present arrangements for the training and education of leisure centre gymnasium staff is perceived as overly bureaucratic and difficult to administer because of shift-working. There are serious questions concerning the level and quality of the education and there is deeply held scepticism among academics, GP's, the staff who undertake these courses and their managers. The availability of adequate long-term funding and training opportunities limits the potential for expansion of these programmes and jeopardises their sustainability. The leisure centre staff with responsibility for delivery of these programmes report greatest success with regard to exercise compliance when they are able to work with clients on an individual basis. However, there is not sufficient staff to be able to do this on a regular basis. The lack of appropriately trained staff was seen by some interviewees as more of a barrier than the provision of facilities *per se*.
- 5.10 The standard, nationally accepted qualification for all other health professions (medicine, nursing, health promotion, dietetics, physiotherapy etc) is a minimum of an undergraduate degree. However, despite the fact that exercise professionals are now expected to prescribe physical activity to people with chronic, life-threatening illnesses (the complexity of which tends to be vastly understated by non exercise professionals), the recognised qualification has been aligned to level 3 National Vocational Qualification (NVQ) standards i.e. the level of training that is nationally recognised is appreciably lower than other professions. This has done very little to enhance the confidence of referrers or to promote the professional standing of the staff. Furthermore, there is discontent amongst these workers because they are expected to gain this additional qualification and carry the responsibility of 'writing' the exercise prescriptions without additional remuneration. The training towards this qualification has previously been delivered by a number of commercial training providers. A number of interviewees in the three unitary authority areas were unhappy about the training they had received, access to additional learning resources and the opportunity for continuing professional development.
- 5.11 **The importance of physical activity:** Some interviewees suggested that there is a lack of understanding concerning the importance of physical activity in relation to improved quality of life and longevity; not only among patients and the public, but amongst many health and social care professionals as well. The exercise referral schemes suffered from the lack of ongoing attendance once the period of referral had been completed. In many cases there was little that could be done to ensure the continued attendance by these people. The reason often suggested for this was issues regarding financial contribution, however it was also suggested that there was simply a lack of willingness to further attend once the allocated time for exercise had been completed. This would seem to point to a failing in the understanding of the need for physical activity as part of a healthy lifestyle. The walking groups drew more repetitive attendance due to the lack of financial contribution and the social network that was formed in the community. However, it

was the case that there were areas that were less receptive to the idea of attending this type of initiative and regardless of the resources being in place the scheme was not undertaken. It may be that in some more disadvantaged areas the importance of physical activity is somewhat undervalued.

- 5.12 **Lack of evaluation, rigorously conducted ‘experiments’ and dissemination of best-practice:** There was a consistent feeling among several interviewees that few interventions, which address the promotion of physical activity at community level, have been evaluated appropriately, and even fewer have been rigorously evaluated or have measured health outcomes. The lack of appropriate outcome measuring, data collection and management, and somewhat less than robust evaluations has made it difficult to identify examples of ‘best-practice’. Often, evaluation of physical activity ‘schemes’ is performed by the local project co-coordinator and their staff. This results in additional work for individuals who frequently feel ill-equipped to perform this evaluation.
- 5.13 **Marketing and promotion of physical activity:** The marketing and promotion of physical activity has been distinctly lacking and the appropriateness of some of the messages and the way that they have been delivered is questionable. For example, using Dwayne Peel in the Health Challenge Wales TV advert. There is often little or no awareness in the community of the schemes and services being offered due to inadequate promotion and when it is in place it is often limited to the place where the service is offered thus the information has little chance to circulate. In one instance, it was found that GP’s were not only failing to recruit individuals for a walking scheme, they were failing to disseminate information about the scheme through their practice (Ward, 2003).
- 5.14 **Perception of certain facilities and organisations:** Many opportunities for engaging physical activity exist within local authority sports and community centres. Interviewees and focus groups suggested that the perception of these facilities in comparison to privately run clubs was extremely poor. Many of the buildings are generally perceived as being in poor condition and offering opportunities for older people. It was recognised that the natural outdoor environment and countryside provide great potential and opportunities for physical activity. However, it was felt that walking and Walking Clubs and Associations such as the Ramblers cater for older people. Also, there was a perception that walking was an activity more suitable to a specific time of year - when the weather was better and the days longer. However, this clearly does not apply to those enthusiastic walkers who regularly take part in this activity. For those that do not, it may be that they have a particular perception about walking or are failing to recognise its potential for improving health.
- 5.15 **Educational factors:** Lack of inappropriate, physical activity-specific and concerted education was seen by some as an important issue. Furthermore, there was concern that there is an issue regarding helping health and social care professionals (and to an extent, the public) gain a greater understanding of the components/determinants of behaviour change that is not being met. There seemed to be certain areas where the impact of the schemes and initiatives on offer appeared to have less influence and this was often cited by the stakeholders as a

problem of miss-education on the necessary requirement of daily exercise and the way this could be obtained.

- 5.16 ***The problematic areas relating to age groups and gender.*** One of the issues that seemed to arise was the problem of getting people of different ages to participate in the community, and more particularly, in exercise in general. Depending on the activity, there is often a specific age and sex group drawn to that activity. As stated previously, approximately three-quarters of participants on the Walking the Way to Health Initiative are older, affluent females (Dawson *et al.*, 2006). Sixty-six per cent of walkers on the Merthyr Walking the Way to Health scheme were female, generally aged 50+ years (Ward, 2003). Walking groups may become a social network to explore personal and everyday issues. Male members may feel intimidated and, therefore, exclude themselves. It was felt that much needed to be done to draw in that group of people who are referred to as being most sedentary i.e. people who are in their 30s and 40s. It was felt that at this age, people begin to become less active as their children grow up and daily life becomes more isolated from those places and institutions that emphasise the need for increased physical activity. Thus, it was this inactive group that often seemed to be absent from those exercise schemes and groups.

6.0 MAIN ISSUES FROM INTERVIEWS WITH COMMUNITY GROUPS.

6.1 Over several months a number of focus group discussions were held within Torfaen, Merthyr and Caerphilly. The following paragraphs summarise the main issues arising from these discussions. A list of the Groups with whom discussions were held is provided as an appendix.

6.2 **Facilities, transport and anti-social behaviour.** With regard to access to facilities, people acknowledged that within the main centres of Merthyr, Cwmbran and Caerphilly there are good existing facilities. However, people complained about the accessibility of these facilities to outlying communities. For example, health/leisure professionals and members of the public complained about poor public transport in the Upper Rhymney Valley. One person in Caerphilly Borough said

“They need to improve transport in this area. I have to catch two buses if I want to go to the line dancing and I usually have to wait a while for the second one. The only good thing is the free bus pass but it’s not much use if the buses aren’t regular”.

Another individual stated,

“It’s no good having older people swimming for free if you can’t get to the pool. They need to do both for it to work”.

A member from an exercise referral scheme in Torfaen agreed with these sentiments, stating:

“I catch a bus to come down here. I sometimes have to wait a while to get one. That’s the only problem really. I would use the swimming baths and all the other facilities if I could get down more often. The public transport is a bit of a pain.”

Access to facilities, public transport and anti-social behaviour appear to be interconnected issues for some people. In Merthyr, for example, one individual commented as follows:

“In this area, the trains after a certain time have no conductor, just a driver. This puts people off from travelling at certain times as they feel unsafe. The trains on the Valleys lines aren’t policed, incidents go unnoticed and, therefore, travelling becomes less safe”.

It was suggested that some young people from Merthyr ride the trains between Merthyr and Pontypridd in the evenings for enjoyment. Other passengers find this intimidating and this puts people off using the train.

A focus group in Caerphilly suggested that some people are afraid to use buses in the evening as certain youngsters throw “bricks” at them.

The direct, independent, effect of anti-social behaviour on physical activity is unclear and is yet to be systematically evaluated in these communities. However,

the following ‘evidence’ suggests that anti-social behaviour is probably an important determinant for some forms of activity in certain groups of people. In Caerphilly, individuals in one focus group acknowledged that anti-social behaviour was a serious issue that directly impacted on physical activity. They raised the issue of young people “hanging about” the streets in the evening. This, it was suggested, made them nervous and reluctant to walk in the evenings. Another focus group in Caerphilly also raised the issue of anti-social behaviour with one individual stating the following:

“There is a tennis court and cricket field but people abuse them. They get used in the summer but they have been vandalised recently”

Another individual from this group said,

“When we went line dancing the other night, people were kicking the doors and shouting. It would frighten you if you were on your own”.

In Torfaen, members of a focus group who use a community centre also had personal experiences of how anti-social behaviour influences their physical activity and the opportunities for physical activity in their community. One individual stated,

“It’s very rough up here sometimes. The windows get smashed on a Friday night, people shouting. It makes people afraid to come here. They chuck stones at the club itself”.

Another member of this group stated,

“This area is getting very rough. They ride their motorbikes over the playing fields. It’s not safe for people to play”.

A third member of this group talked of their first-hand experiences whilst walking in a local park.

“I’ve seen people set alight to the park benches. I’ve spotted them when I walked past once. It wasn’t as if they very young either. I haven’t walked there since”.

In some instances, people were particularly disillusioned with the physical state of facilities. Individuals frequently complained about buildings and parks falling into states of disrepair.

In Torfaen, one individual bemoaned the condition of the local park.

“The play park is in a very bad state. It’s just not suitable. That definitely wants improving because there is nothing else up here for them”.

They went on to complain that even though they had managed to get 2,000 people to sign a petition, the Council had not done anything to improve the facility.

Another group in Torfaen had first-hand experience of how lack of funding had adversely affected their physical activity. This individual said:

“We did have an exercise class in this hall but we had to give it up due to lack of money. This hall is getting old now and it would take a lot of work to bring it up to standard”.

Climbing Higher has specific targets with respect to the use of the natural environment to increase physical activity levels. These targets are:

- The percentage of the people in Wales using the Welsh natural environment for outdoor activities will increase from 36% to 60%
- 95% of people in Wales will have a footpath or cycle-path within a ten-minute walk
- No one should live more than a six-minute walk (300m) from their nearest natural green space

Some individuals stated that greater diversity was required with regard to the activities that are offered within the community. For example, belly dancing and line dancing were activities that were frequently mentioned. Some health professionals stated that there is a marked shortage of qualified instructors for these activities.

6.3 **Health and education:** Most people who participated in focus group discussions had some understanding of the health benefits of physical activity. Individuals taking part in exercise referral schemes appeared more likely to be aware of these benefits. With regard to education, perhaps the key message resulting from discussions with both health professionals and members of the public is concerned with helping people overcome their personal and environmental barriers. As one individual from a focus group in Torfaen stated,

“Obviously staying active is good for your health, I think everyone knows that. But there is more than just understanding the facts. You need to have the ability to actually do something about it. That’s what needs to be addressed”.

For the most part, it was understood by the members of these focus groups that health and being educated about the benefits of physical activity go hand-in-hand. One member in Merthyr stated it was almost unbelievable that there was still a problem getting this message across:

“It’s not until it hits that you realise the way you should have lived. With today’s information and medical improvements people should have no reason not to be active; everyone should know how important it is.”

For the members of the exercise referral schemes the need to stay physically active was more apparent due to their own personal ill health. One member in Torfaen had benefited in particular:

“I prevented surgery through exercise, I had spinal surgery 18 months ago and was due to have another one but because my back has strengthened up now and by losing weight I haven’t needed it.”

However, it was also apparent to the members of these schemes that more needed to be done to implement activity earlier in order to prevent the decline in health through inactivity, one member said:

“It’s all very well putting people on these schemes when they are suffering from bad health but more needs to be done to prevent people reaching this stage. Schemes like this need to be there before people get ill so that more can be done to prevent the bad health of people in Wales.”

Interestingly, mothers at the Caerphilly and Merthyr Homestart groups felt that educational messages about the importance of physical activity were of little significance to most people when they were promoted by “someone who is extra slim or extra fit”. They suggested that the message would be far more meaningful and effective if it was given by “someone who was fat and dying”.

- 6.4 **Personal finances:** As expected, individuals on focus groups representing particular disadvantaged groups, for example, Homestart in Caerphilly and Merthyr, highlighted the personal financial cost of some activities prevented them from participating. Spending money on aerobics classes, for example, was a low priority for many mothers. In Merthyr, people acknowledged that the new JJB Fitness Club was “probably great” but also stated that there was no way they could afford to use it. Interestingly, several groups highlighted the initial extra expense of the gymnasium induction as a particular reason for not using facilities that include this cost.

For other groups, issues of finance appeared to be more problematic than others, particularly in those groups that were restricted by having to exist on benefits due to mental illness. One member in Caerphilly stated:

“A week or so back some of this group went out to one of the gyms to go as a group to access the gym but what we found was that in 99% of places you had to pay an induction fee...That knocked us back; we cant afford to cover the costs and the group can’t afford to pay for these things themselves often. A free induction would encourage groups like us to go.”

Members of the exercise referral scheme in Torfaen also acknowledged issues of finance as being a problem particularly in relation to continued attendance. One individual said:

“If they could give more incentives to stay it would help. They do offer a reduced rate in membership but I still think people find it hard to pay it and keep coming, particularly those older people or people on a low income. I know that out of the group I was in there is only a few that have kept coming after the free sessions had finished.”

- 6.5 **Young children and childcare:** Inadequate childcare provision at sports and exercise facilities was seen as a particular problem for some individuals. Some mothers suggested that simply having children meant that they had no time to be physically active themselves. Others suggested that they would like to be able to use local gymnasiums and swimming pools but that there was no childcare provision. Some of these argued for the provision of crèche facilities at leisure centres. In all the groups that were restricted by childcare responsibilities, it was felt that more could be done to cater for people with children in order for the parents themselves to allocate time to stay active, although most of those individuals felt

that the daily activity of looking after the children was activity that was often overlooked.

- 6.6 **Body weight and body image:** Body weight and body image was seen as an important factor that influences physical activity by several different groups. Being overweight or obese was something that represented a significant barrier as exemplified by the comments of one Homestart mother who stated that she only goes swimming if a friend covers her with a towel as she walks alongside the swimming pool. The solution, people suggested, is more activities exclusively for overweight and obese individuals. It is the case that those people who are overweight or obese will not only suffer from low self esteem but will suffer from other issues such as mobility, one member in Merthyr said:

“A lot of people are overweight and therefore it’s more of an effort, if you’re overweight you can’t walk that far. You don’t have the motivation and get stuck in a rut of low self-esteem.”

Those members that attended the exercise referral in Torfaen felt that if they had to attend a gym that wasn’t solely dedicated to themselves they may find it difficult in relation to their body image and confidence. One member acknowledged:

“I think people know about the need for exercise but a lot of people are scared what they look like in the gym, it’s a big thing. I was very self conscious, that’s why this gym is great. I wouldn’t go over into the other one ‘because they seem healthier and slimmer and I would be slightly more intimidated there.”

- 6.7 **Low motivation and lack of confidence (self-efficacy):** A low level of motivation toward becoming more physically active and a lack of self-confidence (physical activity self-efficacy) are consistently correlated with physical activity behaviour. The discussions with the focus groups suggested that these were important factors within this survey. Individuals from exercise referral groups tended to be motivated by exercise because of their ‘illness’. However, others recognised that their motivation to exercise was extremely low and was likely to remain that way in the absence of a real need i.e. needing to lose weight or some other tangible health gain.

For those individuals from the mental health groups a lack of confidence was particularly apparent, one member from Caerphilly felt that exercise could benefit those people suffering from mental health issues:

“It (physical activity) can get you back out into the community meeting other people and taking part in activities. It can give you back a feeling of normalcy.”

Members of the mother/toddler groups often cited lack of motivation as a problem, particularly when their children were young. One member from Caerphilly mentioned:

“Everyone should use their own willpower to get active. It’s just finding that motivation. It is ok when you want to lose weight or get fit but if you’re not bothered about either then you won’t try.”

- 6.8 **Issues in mental health:** Within this project, several discussions were held with groups and individuals representing mental health in each of the Boroughs. The stigmatisation and social exclusion associated with mental illness was seen by all groups and individuals as a particular problem with regard to physical activity participation. Speaking about using local authority gymnasiums, a patient from Torfaen stated:

“I have had bad experiences before. You go along to these activities and are made to feel out of place”.

Another patient from the same group said:

“Before I became ill I used to go to a gym and took part in other things. I wouldn’t be able to now because I wouldn’t feel that I fitted in”.

A third patient said:

“People have a bad opinion of mentally ill people. I just ignore them, it’s their problem not mine but it can put you off trying new things”.

Members of these groups suggested that in order to alleviate their feelings of vulnerability, opportunities exclusively for patients with mental illness should be offered within the community. As many patients with mental illness are also affected by unemployment and, therefore, low income, becoming more physically active is a major hurdle for this group.

- 6.9 **Social aspects:** One aspect that appeared as a significant influence on whether people stay active or not was the social benefits that can occur through becoming more physically active. This was especially true in those group-based activities such as walking groups and those attending gym referral sessions. The referral scheme in Torfaen also had days when the group would go for a walk in the local natural environment. One member said:

“On Fridays we do a walk. It’s good because you can go at your own pace. And you can have a free cup of coffee when you come back and you can chat to people. I do think the social side is important to getting active.”

The referral group in Merthyr Tydfil also felt that the social side of exercise went hand in hand with the health benefits, especially for people who had formerly been isolated before. One member said:

“The social side is important because lets face it, it’s boring otherwise. You’ve got to be with other people to get the benefit. More needs to be done to make this known.”

7.0 **RECOMMENDATIONS**

- 7.1 **Effective Marketing and Promotion** More targeted research needs to be undertaken to determine the most effective and appropriate ways of marketing and promoting physical activity, particularly with respect to 'hard-to-reach' populations. Physical activity needs to be considered and continued as a brand with a clear high level architecture and operational plan. **Physical activity needs to be marketed through a modern, effective, on-going and unequivocal campaign with the same intensity as anti-smoking and sexual health (HIV-AIDS) campaigns. Positive images of physical activity should be regularly broadcast during times of maximal physical inactivity.**
- 7.2 **The Natural Environment** As recognised by many of the groups and interviewees involved in this project, the natural environment of Wales offers huge opportunities for informal recreation and physical activity. This resource, and the opportunity it presents for walking in particular, tends to be under-recognised by the public and some health professionals. More needs to be done to make effective links between those who maintain and promote this resource and those who wish to increase physical activity in their client groups. Evidence exists to show that positive, early-life experiences of the outdoor, natural environment influences physical activity behaviour. In line with CCW and Welsh Local Government Association objectives (Welsh Local Government Association and the Countryside Council for Wales, 2005), children and young people should be provided with the greatest possible opportunity to experience the countryside as part of the National Curriculum. Support mechanisms to alleviate fears of legislation should be in place to help schools meet this objective.
- 7.3 **Identify a National Recreation** As a nation Wales has a healthy obsession with traditional team sports. Unlike countries such as Finland that has cross-country skiing and 'walking with poles', we do not have a national form of active recreation. Wales should consider adopting its own form of active recreation, for example, orienteering, and this activity should become an important aspect of school life for all children. The Welsh Assembly Government should play a lead role in promoting, marketing and funding such a venture. Climbing Higher calls for "all children in Wales to have experienced an outdoor adventure activity before the age of 12 and a further experience before the age of 16". If we truly value physical activity in the outdoors, and see school as an important place in which to lay the foundations of future physical activity behaviour, then we need to be a great deal more aspirational and expect that children regularly experience an outdoor adventure.
- 7.4 **Walking for Young People** The perception of walking and walking associations as catering only for the elderly needs to be challenged. Youth groups and their leaders should be encouraged to form walking groups through incentivised schemes. Young people, aged 16-18 years, should be trained to lead walks and be given 'academic credit' for their achievement. This could be linked with existing academic programmes such as 'A' level or BTEC courses and could provide additional university entrance points. This would also support the development of more environmentally and socially aware young people and facilitate the growth of

walking schemes that frequently suffer from a lack of trained leaders.

- 7.5 Greater Understanding of Behaviour Change** Providing educational messages to enhance knowledge has a weak influence on behaviour when it is not supported by complementary information about how to change behaviour. Thus, more needs to be done to promote a greater understanding of behaviour change and its complexities in collaboration with partners specialising in change management or applied psychology. This is certainly true with regard to the general public and may also be relevant to some health professionals. Past attempts to increase physical activity have relied upon messages about the importance of physical activity from a health perspective. Very little attention has been given to actually helping people overcome barriers. The Centers for Disease Control and Prevention in the United States have addressed this issue in the form of practical suggestions for overcoming physical activity barriers (CDC, 2005). This guidance is further supported by an internet-based quiz that can help people identify the types of physical activity barriers that are undermining their ability to make regular physical activity an integral part of their lives. For example, to help people try and overcome a perceived lack of time and lack of motivation, it is suggested that individuals attempt to identify weekly time slots when physical activity would be possible and to plan ahead for these times. To help people overcome the problem of inadequate childcare the guidance suggests trading childcare with other family members or friends.
- 7.6 Routine Health Screening** There needs to be routine screening for sedentary behaviour at a micro-demographic level that is detailed enough to track changes in the population.
- 7.7 Evaluation and Sharing of Good Practice** Future initiatives should include plans for the comprehensive evaluation of outcomes and subsequent dissemination and sharing of good practice. Future initiatives should include plans for the comprehensive evaluation of outcomes as outlined recently by the National Institute for Health and Clinical Excellence (NICE, 2006) who state that any new commonly used method (brief intervention in primary care, use of pedometers, exercise referral schemes, community-based exercise programmes for walking and cycling) to increase physical activity should only be introduced where there are arrangements for their formal evaluation with a robust design using valid and reliable measures that relate to long-term and short-term outcomes. Collaboration should be encouraged to avoid duplication and small-scale projects and a mechanism to assist community practitioners with the evaluation should be put in place.
- 7.8 Establishing Long Term Funding Arrangements** Very serious consideration needs to be given to the future funding arrangements for physical activity. Such funding could also consider the planned maintenance of assets. The importance of physical activity as a health promoting behaviour with the potential to reduce the personal, social and economic burden of chronic ill-health has been acknowledged. Sufficient long-term financial resources should now be allocated to physical activity to provide the best possible opportunity for a cultural change in physical activity behaviour. One consideration could be establishing Sport and Leisure provision as a statutory as opposed to discretionary service.

- 7.9 **Combating Crime and Anti-social Behaviour** Unless definitive evidence becomes available to the contrary, the assumption that certain crimes and anti-social behaviours (e.g. joy-riding and large street gatherings) negatively impact on some modes of community physical activity (e.g. walking the neighbourhood and cycling) is probably a correct one. Comments made by respondents in this survey certainly indicate that this is the case. Thus, greater efforts need to be made to eradicate or minimise this kind of behaviour. This is particularly relevant in the countryside, parks and open spaces as they provide an opportunity for several kinds of physical activity and active recreation.
- 7.10 **Providing Childcare and Support to Establish Family Routines** To overcome the barriers of lack of time and inadequate childcare, more should be done to help some parents, guardians & carers organise their daily schedule i.e. forward planning to incorporate some form of physical activity. The provision of quality childcare at leisure centres and swimming pools should be considered a worthwhile investment.
- 7.11 **Collaboration Over Transport Arrangements** Discussions with some groups suggested that when people are faced with having to use or change buses and/or trains, particularly when this occurs after dark, this represents a significant barrier. This is an example of where the partnership of leisure services, transport and community policing need to work synergistically for the purpose of increasing physical activity – and physical activity needs to be given a high priority.
- 7.12 **Tailored Interventions for Those at Particular Risk of Exclusion** Certain groups, for example people with obesity and/or mental illness, face the additional personal barriers of poor body image and feelings of vulnerability. Consideration should be given to the provision of specific and exclusive physical activity opportunities for these individuals.
- 7.13 **Provision of Sufficient Trained Exercise Professionals** If the promotion of physical activity is successful and more people become more active this will increase the need for appropriately trained exercise professionals. These may be trained to work in rehabilitation, exercise referral or simply as walk leaders. Sufficient funding needs to be made available to meet this demand and to ensure the long-term future of community physical activity initiatives. The Walking the Way to Health Initiative has highlighted the benefit of trained walk leaders whilst at the same time shown that there is a shortage of such people (Dawson *et al.*, 2006). Furthermore, participation rates on these schemes increases as the number of available walks and walk leaders increase and a wider range of partners become involved. Walking is an excellent activity through which social networks can be developed and social support seems to be a key factor in the success of walking schemes. New sources of potential walk-leaders (e.g. unemployed young men) need to be identified, and incentives for these people (e.g. college/university places) and for new walking groups should be considered. As a supplement to Dragon Sport, University and College Sports and Exercise Science students should be used as a valuable resource to support and implement community physical activity programmes before they finish their degree courses. At the moment, in order to finance their studies, many of these students are often forced into accepting low-

paid jobs that are of no relevance to the academic studies - shelf-stacking in supermarkets, bar-work etc. The Welsh Assembly Government should fund local authorities to employ these students as part-time, exercise leaders who could fulfil several different functions e.g. leaders of community walks and children's after-school activities. University co-ordinators would ensure that they are appropriately trained and screened (i.e. CRB checked).

- 7.14 **Greater Involvement of Primary Care** The significance of physical activity promotion by a primary health care provider is well recognised. **More should be done to engage the support and involvement of GP's who should discuss with their patients the benefits of physical activity as well as making them aware of exercise referral and walking schemes.** GP's and practice nurses are often the most influential health professionals and lack of interest/participation on their part is a major obstacle. This is in accordance with recent recommendations from The National Institute for Health and Clinical Excellence that also recommends referral to an exercise specialist as this increases long-term compliance (NICE, 2006). Lack of involvement by some GP's is in direct contrast to the situation in Finland, where, as part of the national diabetes prevention programme, GP's are encouraged to discuss physical activity with their patients through the use of a structured interview.

“...it has been shown that in general practice, counselling patients about exercise can be effective in increasing physical activity and improving quality of life over 12 months”.

Robert H. Eckel MD, FAHA, President of the American heart Association, 2005.

(Circulation 113: 2657-2661, 2006)

- 7.15 **Raise the Professional Standing of Exercise Professionals** More should be done to enhance the professional standing of exercise professionals who now have considerable responsibility within the provision of exercise in the community. With regard to exercise referral and the promotion of physical activity in general, some health professionals reported a poor response and a lack of cooperation and interest in general on the part of some GPs. There is deep concern and scepticism about the quality and level of the training across all levels – instructors, managers, health promotion specialists, academics, GPs.

- 7.16 The involvement of SkillsActive and the establishment of the Register of Exercise Professionals may partly address this concern but this is unclear at the moment. Short-term training and a poorly understood qualification structure that is overly bureaucratic will hinder the development and acceptance of 'community clinical exercise programmes' in the 21st Century. The recently published Welsh Assembly Government guidance – *Exercise Referral, A Guide to Developing High Quality Schemes* – has failed to acknowledge that there are more than 500 sport and exercise science/studies students graduating in Wales every year (Welsh Assembly Government, 2006). These graduates represent a valuable resource and should become the leaders of community physical activity programmes, not just exercise referral schemes. It seems nonsensical that these graduates are expected to undertake additional, short training courses after completion of a 3-year degree programme. It also adds a significant financial cost to local authorities.

7.17 A discussion between the National Public Health Service, Local Health Boards, Welsh Higher Education Institutions and GPs should be undertaken with the aim of bringing into line some university degree programmes so that students graduate with all of the necessary skills to operate and manage community physical activity programmes. As examples, these programmes should include cardiac rehabilitation, child and adult obesity treatment/prevention, mental health, marketing and promotion of physical activity, models of behaviour change, skills training for the organisation and promotion of walking schemes etc. This process would ensure the continual availability of highly-trained exercise professionals who specialise in community health. In the medium to longer-term, as more of these graduates entered the workforce it would change the image and perception of local authority facilities from one of 'sports centre' to one of 'community health and wellness centre'. These Centres could become the hub of all community physical activity programmes.

7.18 **Breaking Down Social Stereotypes:** More needs to be done to highlight the other social and personal improvements that can be made from becoming active and in particular attending those initiatives on offer. Perhaps with these elements being played out hand-in-hand with the actual activity itself in order for there to be more attendance by a wider range of people. The idea of the obsessive fit person who attends the gym needs to be further broken down in order to apply to all body shapes, demographic stages, socio-economic situations, ability and those 'harder to reach' groups.

7.19 **Establish "Wales Active" - a Physical Activity Task Force**

A critical change that should be expedited as soon as possible is the establishment of a 'Physical Activity Task Force' for Wales. Frequently, community health and exercise professionals claim that there is a lack of leadership and guidance with regard to physical activity. Wales needs a co-ordinated response based upon the best available evidence and the optimal use of resources. The establishment of this Task Force would place the responsibility for increasing physical activity in the hands of an expert panel. This Task force should advocate physical activity and consist of key, multidisciplinary personnel from national and local government, the National Public Health Service, Sports Council, academia and voluntary groups. The role of the Task Force will be to increase the physical activity of the population of Wales - and it should be judged against this outcome. Its functions would be to:

- Disseminate, through regular conferences, meetings and publications, the best available evidence for the promotion and implementation of physical activity.
- Commission new research, where and when this is required.
- Review and evaluate new proposals for physical activity research and recommend funding when appropriate.
- Ensure that there is a co-ordinated and systematic approach to increasing physical activity so that multiple small projects become larger projects that can be thoroughly and appropriately evaluated.
- Provide an immediate access point for help, information, advice and education about physical activity for both the public and other health and exercise

professionals. As part of this they should construct and manage a website for both exercise professionals and the public that houses a ‘toolkit’ for increasing physical activity.

- Recommend the allocation of new resources to promising new schemes and ideas when they are needed.
- Work closely with SkillsActive on the process of the training of exercise professionals.
- Ensure that there is routine screening at a micro-demographic level that is detailed enough to track changes in the population.

8. CONCLUSION

The health, social and economic benefits of a physically active society are well known and widely accepted. Many people enjoy these health benefits and also the thrill and friendship of regularly participating in sports and exercise. However, despite the widely held view that activity is "good for you", there remain far too many people who fail to realise even the minimum recommended amount of daily physical activity. For a variety of reasons, individuals from 'disadvantaged' communities and groups are over-represented in this gathering of sedentary lifestyles.

Results from several notable studies have shown conclusively that regular, moderate-intensity exercise such as walking is much more likely to be maintained over the years by people of different social and economic groups. At least 30-minutes of brisk walking, on at least 5-days per week, is a level of activity that everyone should aim to achieve. To support this aim, the relevant authorities in Wales should do all in their power to facilitate this and several recommendations have been outlined. Furthermore, Wales should invest heavily in building an infrastructure of exercise facilities and services that are world class and assist people to pursue a wide variety of physical activities.

References

1. Anderson C B (2003). When more is better: number of motives and reasons for quitting as correlates of physical activity in women. *Health Education Research* 18: 525-537.
2. Anonymous (1999). Trees and healthy living. NUFU Conference Proceedings.
3. Armstrong N and Welsman J (1997). *Young People and Physical Activity*. Oxford University Press, Oxford.
4. Bengoechea EC et al (2005). Gender differences in perceived environmental correlates of physical activity. *International Journal of Behavioural Nutrition and Physical Activity*: 2 (12).
5. Booth M et al (2000). Social-cognitive and perceived environment influences associated with physical activity in older Australians. *Preventive Medicine* 31: 15-22.
6. Brettschneider W-D and Naul R (2004). Study on young people's lifestyles and sedentariness and the role of sport in the context of education and as a means of restoring the balance – final report. University of Paderborn.
7. Burgess J (1995). Growing in confidence: Understanding people's perceptions of urban fringe woodlands. Countryside Commission.
8. Centers for Disease Control and Prevention (2005). *Physical Activity for Everyone: Making Physical Activity Part of Your Life: Overcoming Barriers to Physical Activity*. Division of Nutrition and Physical Activity, Atlanta, USA.
9. Clement L, Hutson S and Williams S (2004). Identifying Perceived Barriers to Participation and Identifying Gaps in Service Provision and Infrastructure in Rhondda Cynon Taf. MSc dissertation, University of Glamorgan.
10. Countryside Council for Wales (undated). *A Better Wales: The Natural Environment of Wales in 2010*.
11. Csikszentmihalyi M and Larson R (1984). *Conflict and Growth in the Teenage Years*. Basic Books, New York.
12. Dawson J et al (2006). Evaluation of Changes to Physical Activity Amongst People who Attend the Walking the Way to Health initiative (WHI) – Prospective Survey. The Countryside Agency.
13. Department of Health (2005). *Choosing Activity: A Physical Activity Action Plan*.
14. Despres J-P (1997). Visceral obesity, insulin resistance, and dyslipidemia: contribution of endurance training to the treatment of the plurimetabolic syndrome. *Exercise and Sports Sciences Reviews* 25: 271-300.
15. Doll R and Hill AB (1954). The mortality of doctors in relation to their smoking habits. A preliminary report. *BMJ* 228 (i): 1451-1455.
16. Eckel RH (2006). Preventive Cardiology by Lifestyle Intervention: Opportunity and/or Challenge? Presidential Address at the 2005 American Heart Association Scientific Sessions. *Circulation* 113: 2657-2661.
17. Hardman, AE and Stensel, D (2003). *Physical Activity and Health. The Evidence Explained*. Routledge, London.
18. Jacobson PC et al (1884). Bone density in women: college athletes and older athletic women. *Journal of Orthopaedic Research* 2: 328-332.
19. Janssen I, et al (2005). Comparison of overweight and obesity prevalence in school-aged youth from 34 countries and their relationships with physical activity and dietary patterns. *Obesity Reviews* 6: 123-132.
20. Hickey R (2003). Use and demand for rights of way. Countryside Agency.

21. Hillsdon, M and Thorogood M (1996). A systematic review of physical activity promotion strategies. *British Journal of Sports Medicine* 30: 84-89.
22. Katzmarzyk, P (2006). Physical Activity and Chronic Diseases. In, ACSM's Resource Manual for Guidelines for Exercise Testing and Prescription. American College of Sports Medicine. Lippincott, Williams and Wilkins, Philadelphia.
23. Keck PE and McElroy SL (2003). Bipolar disorder, obesity, and pharmacotherapy-associated weight gain. *Journal of Clinical Psychiatry* 64: 1426-1435.
24. Lumeng JC et al (2006). Neighbourhood safety and overweight status in children. *Archives of Pediatric and Adolescent Medicine* 160: 25-31.
25. Marcus BH and Forsyth LH (2003). *Motivating People to be Physically Active*. Human Kinetics, Champaign, IL.
26. Morgan WP (1997). *Physical Activity and Mental Health*. Taylor and Francis, USA.
27. Morris JN et al (1953). Coronary heart disease and physical activity of work. *The Lancet* ii: 1053-1057.
28. Mostyn B (1979). Personal benefits and satisfactions derived from participation in urban wildlife projects. SCPR.
29. Napolitano MA and Marcus BH (2000). Breaking barriers to increased physical activity. *The Physician and Sportsmedicine* 28: 10.
30. National Institute for Health and Clinical Excellence (2006). *Promotion of Physical Activity Among Adults. Evidence into Practice Briefing*.
31. National Public Health Service (2004).
www.wales.nhs.uk/sites/documents/368/Deprivationreport10Dec04.pdf
32. O'Brien, L (2005). Trees and their impact on the emotional well-being of local residents on two inner London social housing estates. Forestry Commission.
33. O'Brien L and Tabbush P (2005). Accessibility of woodlands and natural spaces: addressing crime and safety issues. Forestry Commission.
34. Orwoll ES et al (1987). Swimming exercise and bone mass. *Osteoporosis* 1: 494-498.
35. Paffenbarger RS Jr et al (1986). Physical activity, all-cause mortality, and longevity of college alumni. *New England Journal of Medicine* 314: 605-613.
36. Parry-Langdon N and Roberts C (undated). *Physical Activity, Sedentary Behaviour and Obesity*. HSBC Briefing Series: 1. Health Promotion Division, Welsh Assembly Government
37. Powell KE et al (1987). Physical activity and the incidence of coronary heart disease. *Annual Reviews in Public Health* 8: 253-287.
38. Pretty J et al (2005). The mental and physical health outcomes of green exercise. *International Journal of Environmental Health Research* 15: 319-337.
39. Quinney AH (1994). *Toward Active Living*. Human Kinetics, Champaign, IL.
40. Retallick CJ et al (2006). Obesity prevalence estimates in children and adolescents in Wales, UK: A comparison of standards based on BMI and waist girth. *World Congress on Obesity*, Sydney.
41. Sallis M, Prochaska JJ and Taylor WC (2000). A review of correlates of physical activity of children and adolescents. *Medicine and Science in Sports and Exercise* 32: 963-975.
42. Seefeldt V et al (2002). Factors affecting levels of physical activity in adults. *Sports Medicine* 32: 143-168.
43. Sports Council for Wales (2005). *Framework for the Development of Sport and Physical Activity. From Strategy to Action*.
44. Trost SG et al (2002). Correlates of adults' participation in physical activity: review and update. *Medicine and Science in Sports and Exercise* 34: 1996-2001.

45. Wales Centre for Health (2005). Health in Wales. A Report on Health in Wales Based on the Results from the 2001 Census. Local Government Data Unit, Cardiff.
46. Wankel L (1988). Exercise Adherence and Leisure Activity: Patterns of Involvement and Interventions to Facilitate Regular Activity. In, Dishman R (ed) Exercise Adherence. Its Impact on Public Health. Human Kinetics, Champaign, IL.
47. Ward, M (2001). Do Something Active. Final Report. Bro Taf Health Promotion Service.
48. Ward, M (2003). Walking the Way to Health. Final Report. Merthyr Tydfil NPHS.
49. Ward-Thompson C et al. (2004). Open space and social inclusion: local woodland use in Central Scotland. Open Space.
50. Welsh Assembly Government (2002). Well being in Wales. Consultation Document. Public Health Strategy Division, Welsh Assembly Government.
51. Welsh Assembly Government. Welsh Health Survey 2004. www.wales.gov.uk/keypubstatisticsforwalesheadline/content/health/2004/hdw20041118-e.htm
52. Welsh Assembly Government (2003). Wales: a Better Country: The Strategic Agenda of the Welsh Assembly Government.
53. Welsh Assembly Government (2005). Climbing Higher: the Welsh Assembly Government Strategy for Sport and Physical Activity.
54. Welsh Assembly Government (2003). Health Challenge Wales.
55. Welsh Assembly Government (2005). Health Status Wales 2004-05. Chief Medical Officer's Report Series. Report 1.
56. Welsh Assembly Government (2006). Exercise Referral, A Guide to Developing High Quality Schemes.
57. Welsh Local Government Association and the Countryside Council for Wales (2005). A Breath of Fresh Air. Access for Health, Well-being and Prosperity.
58. Woolley H (2003). Urban Open Spaces. Spon Press.
59. World Health Organisation (2002). The World Health Report, 2002. Reducing Risks, Promoting Healthy Life. World Health Organisation, Geneva.
60. World Health Organisation (2004). Global Strategy on Diet, Physical Activity and Health. World Health Organisation, Geneva.

APPENDIX

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Caerphilly County Borough Council focus group of various Communities First, Leisure and Health professionals
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Caerphilly BURD Mental Health Group
Exercise 4 Life participants and staff, Torfaen
Walking the Way to Health and Slimswim representatives, Merthyr Tydfil
Torfaen Luncheon Club
Surestart, Torfaen
Torfaen Mental Health Group, patients and staff
Communities First representative, Merthyr Tydfil
Caerphilly Home-from-Home club
Homestart, Merthyr Tydfil
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