

London 2012 legacy research: final report

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1. Objectives

The Department for Culture Media and Sport (DCMS) and the COI commissioned EdComs to undertake desk research to assess the potential of mega-events, and the Olympic and Paralympic Games in particular, to influence people's wider attitudes and behaviour across the five legacy commitment areas. These are:

- To make the UK a world-class sporting nation, in terms of elite success, mass participation and school sport.
- To transform the heart of East London.
- To inspire a new generation of young people to take part in local volunteering, cultural and physical activity.
- To make the Olympic Park a blueprint for sustainable living.
- To demonstrate that the UK is a creative, inclusive and welcoming place to live in, to visit and for business.

The purpose of the research was to inform the development of a Legacy Action Plan which will be published later this year. More specifically the objectives for the research were as follows.

- To look at how mega-events can be used to influence attitudes and behaviours in the longer term in relation to:
 - participation in sport
 - regeneration impact
 - involvement of young people in community sporting, cultural and volunteering activities
 - sustainable environment, lifestyles and communities (using a wide definition of sustainability that goes beyond the usual environmental issues)
 - promotion of the UK.

This involved reviewing evidence from past Olympic and Paralympics, mega-events and policy developments. The range of examples looked at included: world cups for specific sports (cricket, football and rugby), cultural activities, campaigning events (such as Live8, Live Earth and Make Poverty History) and model sustainable communities. Research into potential legacy projects for London 2012 was also explored, although there was relatively little research to be found in this area.

2. Methodology

2.1 Stage 1: scoping

We identified research in three ways:

1. Website searches of relevant organisations, including government departments and agencies, NGOs and research organisations.
2. Searches of journal articles, books and conference proceedings using specialist online databases.
3. Directly contacting people in key organisations.

References within reports sourced were also followed up as a way of identifying further relevant research reports. Further details of sources looked at during the scoping exercise are contained in the Appendix (Section 9).

Each piece of research that was sourced was rated according to the quality of its methodology and relevance to the objectives as follows:

Criteria considered for quality ratings	Criteria considered for relevance ratings
Objectivity of commissioner	Comparability to London 2012 context
Expertise of researcher/organisation	Weight of evidence for sustained attitudinal and behavioural change
Robustness of methodology	Clear link to the target audience and policy area
Extent cited by others	

In summary, the outputs of the scoping stage across the five key commitment areas were as follows:

- *Participation in sport* – there is a reasonable amount of evidence that looks at the potential for mega-events to influence sports participation. There is less evidence of a correlation between elite success and mass participation or between events and people taking up sport professionally.
- *Regeneration impact* – the majority of sources look at direct economic impact. Social impacts overlap significantly with other areas as they look at aspects such as community cohesion, tourism and employment.
- *Involvement of young people in community sporting, cultural and volunteering activities* – young people’s participation on the basis of mega-events is usually looked at within broader adult participation patterns. However, research was sourced that looks at the attitudes of young people in the UK towards activities of this type and suggestions for potential projects made.

- *Sustainable environment, lifestyles and communities* – the broad definition encompassed many of the other legacy areas (and community development and inspiring young people in particular). Evidence on the potential of mega-events for influencing sustainable lifestyles was limited as this is a relatively new area and there has been little in the way of robust evaluation.
- *Promotion of the UK* – most of the research focuses on tourism and UK identity. There was less evidence of a link between events and perceptions of foreign businesses.

2.2 Stage 2: reporting

Following the scoping stage a decision was taken to focus the report on sustainability, participation and inspiring young people. These areas were identified because:

- evidence was concentrated in these areas
- they link clearly to attitude and behavioural change, whereas other areas contained large amounts of economic analysis
- they could encompass relevant aspects of other areas: such as inspiring young people, community/country image and the soft benefits of regeneration.

The main findings section of the report is, therefore, structured around attitude and behaviour change in relation to:

- sustainability
- sports participation amongst adults and young people
- inspiring participation of young people in volunteering and cultural activity.

Recommendations for legacy planning and measurement are made.

3. The reporting context

3.1 The challenges of Olympic research

There is no shortage of research around the Olympic Games. Numerous authors have debated the true meaning of the Games and whether their impact meets the original Olympic ideals of fraternity, friendship, peace and universal understanding. There are a number of dedicated research units with a wealth of information, including the Los Angeles LA84 Foundation, which has recently digitised a large number of articles and made them freely available.

The Olympic and Paralympic Games are unique in the sporting calendar and receive huge television viewing figures as well as many accolades.

“The Olympic Games have always transcended sport. As individuals and nations they raise us all – athletes and spectators alike – to a higher plane.”

(Payne 2005)

This uniqueness makes previous Olympic and Paralympic Games the only close comparison in terms of understanding the legacy left to the host city. However, each Olympic and Paralympic Games has widely different social, cultural and economic contexts. There is also a four-year time lapse between each summer Games during which global economic cycles and public opinion can change dramatically. This is further complicated by the tendency of host cities to aim to achieve more than previous Games. Approaches to legacy planning also become more sophisticated as lessons from past mistakes are taken on board.

Another problem is the risk that strong vested interests can influence Olympic research (Hall 2001); (Kornblatt 2006). There is a trend for host cities to conduct more studies prior to the Games to identify progress and aid planning than after the Games are over (Gratton 2006). In addition journalists, using anecdotal rather than empirical evidence, hold a disproportionate level of power in declaring the event a success or failure.

This means that despite the wealth of information about the Olympics, empirical academic research around the legacy of the Olympic and Paralympic Games is surprisingly rare. This is reflected in sports policy generally with one author noting that there are:

“Strong theoretical arguments about the potentially positive contribution which sports can make to a range of social issues. However, there is also a lack of systematic monitoring or evaluation.”

(Coalter 2000)

A final point before examining the evidence; it is only recently that sport has been looked at as a means of achieving wider regeneration and attitude and behaviour change. The potential for London 2012 to meet its legacy commitment pledges is, therefore, difficult to judge by looking at the achievements of past Games.

3.2 The legacy: hard and soft impacts

One reason for the research gap described above is that many of the impacts of sport are hard to capture and measure. The power of the Olympics' 'spirit' to make a lasting improvement to people's lives is a real hope for organisers, participants and residents alike, but it is hard to identify how and when this has been achieved.

Much of the literature separates impacts that are 'hard' or more tangible from those that are 'soft' or less tangible. Kornblatt makes the distinction between hard and soft impacts as follows:

'Hard' benefits are those that are largely direct and relatively easy to isolate and assess. For example the impact on the labour market, housing market, business and infrastructure investment.

'Soft' benefits include image gains, improved civic pride and health, and the acceleration of secondary investment. (Kornblatt 2006:3)

Our primary focus is on soft impacts such as those that affect attitudes and behaviour. We do discuss hard impacts as well, as the two are clearly linked. The London East Research Institute describes this process as follows:

"There is a tendency for hard legacy to become iconic and significant as monumental and tourist attractions. Soft legacy becomes hard as feel-good factors, governance structures and can-do attitude evolve to form productive social networks."

(London East Research Institute 2007)

4. Executive summary

4.1 Context

- The research looked at the potential of London 2012 to influence attitudes and behaviour in the longer term, in relation to sustainability, the involvement of young people in volunteering and cultural activities and participation in sport. The research was carried out by assessing evidence sourced from identified published research and drawing out the implications for London 2012.
- Comparisons with previous Games proved difficult as each one had its own unique set of economic, social and political circumstances. This is compounded by the fact that host cities also tend to set themselves more ambitious and sophisticated aims than previous Games. Evidence has, therefore, been drawn from other mega-events and projects with similar aims to London 2012, as well as past Games where appropriate.
- The commitment of London 2012 to changing public attitudes and behaviours in a number of areas is challenging and a real point of difference from previous Games.

4.2 Sustainability

- East London is likely to benefit through the increased opportunities for business that will be generated through reconstruction and higher profile from the Games. However, unless networks and employment strategies are put in place for locals, there is a risk they could miss out on many of the economic benefits.
- The evidence suggests the feel good factor arising from the Games can bring people together and have a positive impact on how people perceive their communities, their city and their quality of life – providing hosting the Games is seen as a shared and valued goal. It can also help to broaden horizons and provide opportunities for people to enhance their employment prospects.
- London 2012 could be used as a way of demonstrating government commitment to environmental projects and raising awareness of the issues. However, it can only act as a catalyst to lasting change if combined with simple messages and things people can incorporate easily into their lives.

4.3 Inspiring young people

- Research shows that young people are volunteering in greater numbers and in sport related activities in particular. As well as enabling the development of essential life and job skills, volunteering can give young people a stronger sense of community identification and pride. These benefits can only be achieved by London 2012, however, if projects are easily accessible to young people and enable them to take ownership for themselves. This is essential to address perceptions of the Olympics and Paralympics as remote and focussed on elite success. Similarly, cultural projects should not have an overt Olympic theme as this could narrow preconceptions, but should instead make use of the energy and momentum created by the Games.

4.4 Sports participation

- Evidence for the effect of Games on sustained participation in sport is inconclusive. Although the Sydney Olympics in 2000 and the Manchester Commonwealth Games in 2002 were found to have boosted young people's sporting activity, significant changes were not noted in the adult population for these and other sporting mega-events. The sustainability of young people's increased participation is also not clear from the research.
- There is some evidence to show that the success of a national team or athletes can have an impact, however, this may only be small and short term.
- These likely gains need to be built upon through grass-roots activity, role models, coaching programmes and accessible facilities. Imaginative long term strategies and investment in this area will be needed to change what are often deeply ingrained habits from teenage years onwards.

4.5 Overall

- London 2012 provides a unique opportunity to address barriers to change, target hard to reach groups and model new attitudes and behaviours. However, legacy strategies will need to be embedded in existing programmes and policy areas to achieve success in the long term and real benefits to participation provided.
- A multi-faceted, long term approach to measuring the legacy will need to be taken to capture soft legacy benefits and ensure the benefits bought by the Games can be isolated from other factors.

5. Main findings

5.1 Sustainability

The Olympic and Paralympic Games are about more than sport. There is a widespread expectation that the Olympic and Paralympic Games will have a positive impact on the host city in terms of image, infrastructure and a community enriched by the experience of the Games.

In the past, the Olympic Movement has not always recognised the importance of a sustainable legacy for host cities. The Olympic village from the 1956 Melbourne Olympics was reported to have become an unattractive slum by the 1990s (Cashman 2006). The development of Albertville in France for the 1992 Winter Olympics was labelled an environmental disaster because of the despoiling of the natural landscape (London East Research Institute 2007).

The 1990s were a turning point for the Olympic Movement. The 1992 United Nations Conference on Environment and Development in Rio de Janeiro embedded the term 'sustainable development' in global agendas by binding the concepts of social, environmental and economic development together. In 1995, the environment became the 'third pillar' of the Olympic Charter (along with sport and culture). In 1999 the International Olympic Committee (IOC) promulgated an Olympic Games Agenda 21, which states:

"The starting point of sustainable development is the idea that the long-term preservation of our environment, our habitat as well as its biodiversity and natural resources...will only be possible if combined simultaneously with economic, social and political development, particularly geared to the poorest members of society...in view of its universal nature, the Olympic movement accepts that it has a special responsibility to share in the implementation of this concept of sustainable development"

(IOC reproduced in London East Research Institute 2007)

5.1.1 Defining sustainability

Few people criticise the aims of sustainable development. However it is a difficult term and not one that is recognised by the general public (Darnton 2004b). Darnton notes that different research projects shift the emphasis across the social, economic and environmental aspects of sustainable development and there is no agreed measure of when sustainability is achieved (Darnton 2004b). Perhaps because of these difficulties, the UK debate has tended to favour terms such as 'wellbeing' and 'quality of life' to describe policies that combine social, environmental and economic goals.

Since the early 1990s the idea of sustainable lifestyles has gained ground, particularly in the face of growing evidence of climate change. The notion that everyone needs to play their part in reducing harmful greenhouse gases is more accepted, though sceptics about the reality of climate change remain

and there are many barriers to actual behaviour change (Opinion Leader Research 2007).

Although previous Games have acknowledged the potentially negative impact of hosting the Games and tried to minimise it, to date no host cities have explicitly focused on achieving attitude and behaviour change in terms of sustainable development (London East Research Institute 2007). Even Sydney 2000, widely labelled “the Green Games”, made no direct attempt to inspire individuals to live more sustainably.

London 2012 may be the first Olympic and Paralympics to attempt to create a sea change in public attitudes and behaviours around sustainable development. The five commitment areas require the organisers to influence people and affect behaviour as well as building a lasting infrastructure. This is a big challenge.

The rest of this section looks at how London 2012 can learn from the evidence around economic, social, and environmental sustainability with a particular focus on the role of attitudes and behaviours. It is structured as follows:

- Economic sustainability: impacts around the creation and distribution of wealth including issues around corporate involvement, the cost of living, business creation and jobs;
- Social sustainability: impacts around wellbeing and quality of life including regeneration, volunteering, community cohesion, crime and race relations;
- Environmental sustainability: impacts around the carbon footprint of the Games including issues around sustainable public behaviours.

5.1.2 Economic sustainability

This section addresses whether growth generated by hosting the Olympic and Paralympics can be described as sustainable, looking at the economic impact on the local area and the Olympic influence from corporate sponsorship and upon ethical purchasing.

An organising committee focused on *sustainable* economic legacy does not ask ‘How can we maximise growth from hosting the Games?’ Instead it asks ‘How can we maximise growth without compromising other environmental and social goals?’ This is sometimes termed ‘the triple bottom line’.

The economic legacy of the Olympic and Paralympics can be very powerful and it is a key reason for cities to bid to host the Games. There is clearly a positive link between a city’s economic fortunes and hosting the Olympic and Paralympics but it is not a foregone conclusion and possibly smaller than organising committees hope. A recent study of the previous four Olympic Games describes a mixed economic impact:

“In terms of economic and infrastructural legacy, the Barcelona Games had a lasting and transformative impact upon the city and regional economy; achieving legacy momentum. The Atlanta Games exemplifies partial success in supporting a strategy designed to enhance the city’s commercial centre and infrastructure while Sydney and Athens experienced important improvements respectively in reputation and infrastructure without achieving, to date, significant improvements in their post-Games economies.”

(London East Research Institute 2007)

Promoting East London

As businesses become increasingly globalised, the importance of marketing a positive city image has become more important for a city’s economic health. Hosting major events is one way cities can promote themselves or ‘rebrand’. Hosting the Olympic and Paralympics does have an impact on tourism, though some forecasted figures can be exaggerated.¹ There can also be an important impact on the business presence in the city. After Barcelona 1992, more than 200 US companies opened an office in Catalonia (Kornblatt 2006).

In the past, the International Olympic Committee has struggled to find credible bids for hosting the Games, particularly following the financial disasters of Montreal 1976 and the boycotts of Moscow 1980 and Los Angeles in 1984 (Payne 2005). However, as financial management has improved and television viewing figures increased, there is now no shortage of cities wanting to compete fiercely for the honour of staging the Games. As the most watched event on earth, commentators have described the Olympic and Paralympics as ‘the ultimate in place promotion’ (Smith 2001).

Arguably London does not need rebranding. Smith observes that most cities seeking to rebrand themselves through sport are quite different from London in that they have an industrial heritage which has acted as a barrier to tourism (Smith 2001). Examples of cities in the UK using sport-based initiatives to improve their industrial image include Sheffield, Manchester and Birmingham (Smith 2001). In contrast, London is a city which is already a top tourism destination and ranks number one as ‘the best city to locate a business’ (Gratton 2006).

Nonetheless, London’s bid for 2012 centred heavily on the benefits to the Lower Lea Valley in East London which does have image problems and serious economic and social disadvantage. In terms of tourism, it seems that although the Games themselves will attract a lot of visitors, it is unlikely in the longer term that East London will become a major tourist destination in its own right, mainly because it is some distance from the established tourist centre. Crookson writes:

“Even a great cluster of attractions like Greenwich only attracts a third of the numbers that like-for-like attractions in Central London do...So,

¹ For a fuller discussion of the impact on tourist numbers see London East Research Institute (2001)

therefore, the Lower Lea Valley is unlikely to become a significant new centre for tourist activity.”

(Crookson 2004)

Tourism aside, a more significant legacy for the locals may be making East London a more attractive place to locate a business. In their research for the Learning and Skills Council and the London Development Agency, the consultant group Experian concludes that there are grounds for optimism:

“Many businesses will be drawn to the area, simply because they perceive it to be lively and a place of rapid growth, a self-reinforcing process from which local people can benefit. In this context one crucial point is that the Games can only help. While they cannot create the underlying regeneration, they can act as a catalyst for it.”

(Experian 2006)

Consultant group UBS agree that past evidence indicates that East London stands to gain from substantial new investment, though this does depend on the success of the new infrastructure (UBS Investment Research 2006).

As many writers have pointed out, there is a risk of gentrification and polarisation arising from the rebranding of East London as an attractive place to live and work. The preparations of a mega-event such as the Olympic and Paralympics can result in a rapid increase in prices, in particular house and rental prices (Hall 2001; Ohmann 2006). This is good for home-owning residents but can reduce the availability of affordable housing for others and can lead to displacement in extreme cases. So far, two of the five London boroughs have experienced growth in house prices at twice the Greater London average, whereas the other three saw growth at or below the Greater London average (Kornblatt 2006).² The impact on the cost of living for East Londoners remains unclear but previous experience suggests that wider trends have a much greater influence than any influence from the Games. Cashman concludes that most price rises in Olympic cities occurred for reasons unrelated to the Olympics (Cashman 2006).

Local jobs for local people

Crucial to the future of East Londoners will be whether they will have access to the jobs generated by the Olympic and Paralympics. Much of the literature focuses on the impact that hosting the Olympic and Paralympics has on jobs, though, like tourism figures, the estimates vary widely.³ All agree that there will at least be some positive impact on employment in the area and beyond, though it is clear that availability of jobs is not the primary cause of unemployment in the area. Crookson writes:

² The author notes that data on house prices will be subject to future revision and should be viewed with caution

³ For a fuller discussion on the potential impact on employment in terms of job numbers see PWC 2006, Cambridge Econometrics 2007 and UBS Investment Research 2006.

“The Lower Lea Valley is about ten kilometres from the biggest concentration (1.2 million) of jobs in North West Europe, just a few stops away on the London Underground between Bank and Marble Arch stations. The low employment rate is not, therefore, solely due to a low demand for labour. Rather, social factors lie behind the problem (some on the ‘supply side’, like lack of skills or labour-market readiness some on the ‘demand side’, like recruiting practices and stigmatisation).”

(Crookson 2004)

Fewer sources focus on how to overcome the barriers, which, to date, have prevented many East Londoners from working. Experian is an exception to this. They conducted a useful comparative study with a number of other major construction and regeneration projects, such as Heathrow Terminal 5, Wembley Stadium and Bluewater Shopping Centre, to help understand how to direct new jobs towards the people who most need them. They found that one success factor arose time and time again in consultations:

“Interventions in employment and skills [need to be] fundamentally people-orientated. All of the effective interventions reviewed had front-line staff with high levels of interpersonal skills, the ability to manage projects and to get people working together.”

(Experian 2006)

Crookson echoes this view. He criticises the ‘bus shelter ad’ approach to recruitment and training and instead advocates very local and face-to-face methods of enabling local employers to meet potential employees (Crookson 2004). Developing business networks early to make connections, not just between employers and workers, but also between SMEs and larger contractors is a key recommendation from a number of studies (Experian 2006; London Chamber of Commerce 2005).

Volunteering and employability

The potential for the Games to inspire volunteering amongst young people is covered in more detail in the Inspiring Young People section. In economic terms, volunteering is also an important way to upskill people and reduce barriers to the labour market, and the Games and other mega-events create good opportunities for volunteering.

Improving employment prospects is particularly important for volunteers from minority ethnic groups. A Cabinet Office survey found that 46% of Black and 39% of Asian volunteers agreed that an important benefit of volunteering was to improve their employment prospects, compared to 21% of white people (Low 2007).

Corporate sponsorship

The charge of over-commercialisation has been levied at the Olympic Movement in the past (Hall 2001). This was particularly the case following the selection of Atlanta to host the 1996 Olympic Games (Payne 2005), when the

aim was to fund the Games entirely through a marketing programme rather than use public money. This resulted in a perceived commercial free-for-all which Payne (2005) felt did much to tarnish the reputation of the city and that of the Olympic Games. In particular, the selling of street plots was heavily criticised as it caused transport gridlock meaning that spectators, including journalists, could not get to the Games. The ensuing media coverage was damning (Payne 2005).

There is evidence that local economic indicators are at risk of being excluded from contributing and benefiting from mega-events because of rigorously enforced sponsorship deals with bigger players. Nash and Johnstone illustrate how many local cultural and community events planned in Nottingham and Liverpool around Euro96 failed to materialise because global sponsors were not interested in supporting them and smaller sponsors were barred from doing so because of exclusivity rights (Nash 2001). This type of marketing exclusion is a key concern coming from businesses hoping to benefit from London 2012 (London Chamber of Commerce 2005).

Olympic supporters argue that corporate association with the Olympic brand and its conflicting ideals can accelerate more sustainable practices. On occasion environmental groups have singled out business practices simply because the company was an Olympic sponsor. In Sydney, Greenpeace successfully lobbied the company Westpac to withdraw 150,000 toys because the product breached PVC guidelines (Payne 2005). Similarly Greenpeace labelled Coca-Cola a “dirty sponsor of the Green Games” because of their use of HFC gases in refrigeration. Coca-Cola’s response was to promise to phase out these harmful gasses from all its refrigeration systems worldwide by the Athens Games in 2004 (Payne 2005).

The dominant financial model of Olympic sponsorship is unlikely to change dramatically for London 2012. However, a new focus on ethical purchasing and the promotion of Fairtrade may help make the distribution of wealth flowing to and from the Olympic and Paralympic Games more in line with the goals of sustainable development.

Ethical purchasing

A report from the Co-op Bank in 2000 described the phenomenon by which roughly 30% of consumers claim to care about companies’ environmental and social track records, yet only 3% channel these beliefs into their purchasing preferences (Collins 2004). Closing the so called ‘value-action’ gap is a major challenge of public behaviour change and one which could do much to alleviate poverty in the developing world. Currently London is attempting to become a Fairtrade city (London East Research Institute 2007) and the market share of Fairtrade coffee is up to around 20%, from around 14% in 2002 (Sustainable Consumption Roundtable 2006). Could the Olympic and Paralympics build on these efforts to popularise more ethical purchasing?

To date, the Olympic and Paralympic Games have never attempted to promote ethical purchasing. The London East Research Institute, which has

put forward the idea of a 'Fairtrade Olympics', acknowledges that there may be issues of conflict with official sponsors (London East Research Institute 2007). Because of the lack of previous attempts in this area, there is a corresponding absence of research.

One exception is the campaign surrounding Make Poverty History, which took place during 2005, coinciding with the convening of the G8 in Edinburgh. The evaluation of the campaign denotes it as a success in terms of mobilising public opinion, raising awareness of issues such as Fairtrade and 'Drop the Debt', and involving a wide range of people in campaigning. There were also successes in terms of the central aim of influencing the policies of the G8 (Firetail 2006). Although not a sporting event, there are obvious similarities with the Olympic and Paralympics such as the international focus, the involvement of celebrities and the convening around a large spectator and television event (Live8).

The event made a particular impression on young people and successfully involved many of them in campaigning. With the caveat that this survey comes from a self-selecting sample (66% of those who responded had bought a wristband), 84% said that Make Poverty History had 'made an impression' on them in 2005. London winning the Olympic and Paralympics had made an impact on 54%, and the general election made an impression on just 35% (Firetail 2006).

Evaluators point to many factors that made Make Poverty History a success. A key contributing factor appears to be the combination of a simple brand message (executed in innovative ways) and sound policy analysis which 'opinion formers' such as MPs could listen to and respect (Firetail 2006). The main criticism of the campaign is that the public did not form a clear view of what was achieved in 2005 or what would happen in the future (Firetail 2006). Also, evaluators did not record what impact, if any, the campaign had on ethical purchasing patterns though the fact that the campaign did not ask for money from the public does seem to have had an educational effect on the public in terms of what the deeper issues around development are.

5.1.3 Social sustainability

This section looks at the potential for London 2012 to have a positive impact on the social sustainability of communities in the Olympic Boroughs. It looks at whether the Games could feasibly be used to instil a greater sense of pride, confidence and purpose in the community. Although these intangibles are often overlooked in favour of more obvious and concrete benefits, such as increased jobs and tourism, if achieved they could have lasting effect people's well-being and quality of life.

Regeneration of physical infrastructure

One of the most obvious potential impacts on a city from hosting the Olympic and Paralympics is in terms of physical regeneration and infrastructure to

inner city areas. Chapter 6 discusses the impact on sports participation engendered by the new or improved facilities; here we discuss their wider social impact.

Previous Olympics have shown that hosting the Games can either exacerbate or improve inner city problems, depending on the strategy employed by the organising committee. Sydney 2000 transformed a contaminated area into attractive developments with new facilities (London East Research Institute 2007). The Olympic village was converted into the suburb of Newington after the Games which has proved popular with Chinese-, Indian- and Korean-Australians and is regarded as a 'safe' place to live (Cashman 2006). This has clearly been a positive effect, though the Sydney Games were less focused on regeneration than the London Olympic and Paralympics are: the regenerated areas were, in fact, already wealthier than Sydney as a whole (UBS Investment Research 2006).

The Barcelona 1992 Olympic Games are widely held to have been a huge success for the city which gained a completely transformed waterfront area and an emotional 'reconnection' to the Mediterranean. However, Barcelona's renaissance was due to a strong existing strategy – Olympic projects were only 15% of the output and spending of the total regeneration work (National Audit Office 2007).

A negative example of development for mega-events is the city planners at Seoul 1988 building a wall to screen off the city's slums from the gaze of the international media glare. The preparations for Atlanta 1996 adversely affected many poor African Americans, and residents from at least six housing projects were relocated (London East Research Institute 2007: 52). The current Rugby World Cup in France has been dogged by bad press about authorities 'moving on' vulnerable people who are perceived to be in the way of the event, exemplified by the *Guardian's* headline 'Shanty towns and Gypsies fall foul of World Cup' (*Guardian Newspaper* 2007b).

Physical buildings can provide a social focus for communities and affect perception of neighbourhoods. This is particularly important for those who rarely venture outside the local area (Coalter 2000). Evidence from the USA found that the 'feel-good factor' from living in a quality environment with an upbeat economy and good leisure services outweighed other subsistence factors, such as income, employment and housing, in giving people a sense of overall wellbeing (Coalter 2000).

However, shiny new buildings cannot be thought of as an end in themselves. According to one American academic, the presence of a major stadium and the status of 'being the home of' major league sports teams in baseball, basketball or American football has come to symbolise 'civic health', despite disproportionate subsidies from the tax-payer and questionable wider benefits (Schimmel 2001).

There are valid questions concerning post-Olympic demand and the risk of building 'white elephants'. Following the 2000 Games, Sydney's athletics

stadium struggled to compete with other more central venues in attracting rock concerts and conferences, though a recent increase in new developments and bookings may lead to the venue becoming better used (London East Research Institute 2007). The London 2012 strategy is strongly linked to the existing Lower Lea Valley Regeneration Strategy. Kornblatt suggests that:

“The fact that much of the wider regeneration strategy was planned before the Olympic bid suggests that there will be post-Games demand for the infrastructure.”

(Kornblatt 2006)

There are also important questions about whom the new facilities will be for. In the run up to Sydney 2000, the Ryde Pool Action Group was set up to protest against the building of The Ryde Aquatic Leisure Centre in a Sydney suburb. Residents feared that the fast-tracking of the proposals, the lack of community consultation and the involvement of a private company in the form of David Lloyd Leisure would mean that certain sectors of the community would be excluded from using the pool. Nonetheless, the legacy of the new facilities appears to have been good with large sectors of the community using the pool regularly and swimming figures higher than they were prior to the Games (Cashman 2006).

The feel-good factor

The Olympic and Paralympic Games do bring something special to the host city. This is reflected in the pledges made by London 2012. A survey has shown that 77% of Londoners and 78% of people in Manchester and Glasgow believe that the intangible benefits of the Olympics, such as the effect of uniting people, the creation of a feel-good factor, enhanced national pride, the chance to motivate and inspire children and the legacy of sports facilities, are the most important, or at least, equally as important as the more tangible financial or physical infrastructure benefits (Price Waterhouse Coopers 2005). A survey of Munich residents following the 2006 World Cup found that 88% believed the event had strengthened the community (Ohmann 2006).

However, there are plenty of sceptics who are doubtful about the true values of the Olympic ‘spirit’. The criticism of over-commercialisation has already been described in the section on economic sustainability. For host cities there is also the reputational risk of association with a failed project (Hall 2001). When contractors failed to build the stadium on time, the 2004 Games in Athens only narrowly missed total disaster (Payne 2005). Speculation over what might go wrong is the sport of journalists during the run up to any Olympic and Paralympic Games. Bill Bryson commented on the Australian run up to Sydney 2000 as follows:

“It is literally not possible to name a catastrophic contingency, short of asteroid impact or nuclear attack, that hasn’t been mooted and exhaustively analysed in the nation’s press in the long run-up to the Games.”

(Bill Bryson, quoted in Payne 2005)

A certain amount of criticism around London 2012 is to be expected, as there was for Sydney 2000. However, a number of recent sources have warned of a genuine erosion of public goodwill through concern about costs (Kornblatt 2006; London East Research Institute 2007) and the loss of lottery funds for some charities (*Economist* 25/08/2007). This could seriously undermine the long-term legacy of the London 2012 in terms of the intangible ‘feel-good factor’.

Community cohesion

There is plenty of anecdotal evidence that involvement in sport can increase community cohesion and empowerment (Long 2001). Other sources of ‘hard’ evidence about the benefits of sport are hard to come by but this is not surprising as:

“Purely quantitative and pseudo-scientific models of evaluation are rarely appropriate for community based initiatives.”

(Lightfoot, 1994, cited in Long and Sanderson 2001)

The potential for sport to strengthen communities will be particularly important for multi-ethnic East London. There is a collection of literature around how sport and sporting events influence relations between ethnic groups. Australian academics have documented how sport can be an effective and ‘accepted’ way for male immigrants to assimilate into society, though this is less common for female immigrants (Taylor 2001). A survey of residents in Munich following the 2006 Football World Cup found that their perceptions of community cohesion, and, specifically, relations between those from different ethnic backgrounds, had significantly improved following the event (Ohmann 2006). The Aborigine community broadly supported the Olympic Games in Sydney 2000, despite initial concerns that they would call on some nations to boycott the Games in order to improve their human and land rights position (Cashman 2006; Hall 2001). Cashman concludes that this support was due to a number of possible reasons:

“One is that Aborigines were given more reasons to support than to oppose the Games; another factor was SOCOG’s inclusive attitude, and finally there was the status of Cathy Freeman [from the Aborigine community] as Australia’s best track and field prospect.”

(Cashman 2006)

The evidence suggests that the Olympic and Paralympic Games do have the ability to bring people together. The Games may also help to broaden the horizons of those in the host city. “The quality and degree of interaction with the world beyond neighbourhoods” has been identified as an important factor

in overcoming exclusion for communities who can sometimes be defensive and inward looking (Coalter 2000). However, it must be remembered that the Games are only a two-week event and it is naive to assume that they can overcome entrenched barriers between different groups. Many commentators have pointed out that in order for the legacy to be sustainable in the longer term, there must be a link to existing regeneration strategies (Kornblatt 2006). This is the case in London with the link to the Lower Lea Valley Regeneration plans.

Sport and crime

Might the Olympic and Paralympic Games help reduce crime? In the short term there is likely to be a negative effect. Major events usually coincide with an increase in petty crime and prostitution (Ohmann 2006). It is interesting that residents do not necessarily realise this, perhaps because the carnival atmosphere acts as a mask to such clandestine activities (Ohmann 2006).

In the longer term, the impact on crime may be more positive. It is widely held that sport programmes in general can help reduce crime, though there is little hard evidence on this. Coalter points out that projects designed to divert people away from crime rarely last long enough to achieve any meaningful impact (Coalter 2000).

Fear of crime has a major effect on how people feel about their local communities. Levels of trust in other people are lower in London than in other parts of the country. People living in Wales were four times as likely as people living in London to believe it was very likely their purse or wallet would be returned to them if lost (20% compared with 5%) and twice as likely to say they felt very safe walking alone at night (35% compared with 18%) (Home Office Research 2004). The presence of physical buildings for sport can help improve feelings of safety – this is likely to be an additional benefit of the new Olympic infrastructure (Coalter 2000).

The evidence on crime appears mixed and the long-term legacy will depend largely on the success of wider regeneration efforts.

Volunteering for the games

Adults

General volunteering levels appear to be healthy with nearly three-fifths (59%) of people volunteering through an organisation in the last year (Low 2007). In England, the percentage of people who participated at least once a month in civic activities, informal volunteering or formal volunteering increased from 48% in 2001 to 51% in 2003, an increase of more than 1.5 million people. However, there is some qualitative evidence that volunteers can be hard to recruit in some areas and Coalter stresses the need for ongoing support for volunteers from skilled professional workers (Coalter 2000).

Sport has a high reliance on volunteers. It is generally recognised that volunteering in sport offers possibilities for the development of a sense of self-

esteem and social purpose (Coalter 2000). It has been suggested that 22% of people currently volunteering are doing so for sports- or exercise-based organisations (Low 2007). There are significant differences by ethnicity and religion; 24% of White volunteers participated in organisations whose main field of interest was sports or exercise, 12% of Asian and 8% of Black volunteers participated in these organisations. Organisations concerned with religion or overseas aid were most likely to be supported by Hindus and Muslims. Conversely, organisations relating to sport and exercise were least likely to be supported by Muslims (Low 2007).

A volunteer programme was implemented in each of the previous four Olympic and Paralympic Games. Table 1 presents a general overview of the volunteer numbers in previous Games (Experian 2006).

Table 1: Volunteer numbers in previous Games

	Number of volunteers
Barcelona 1992	35,000
Atlanta 1996	54,000
Sydney 2000	60,000
Manchester 2002 (Commonwealth Games)	10,500
Athens 2004	45,000

Source: (Experian 2006)

The programme implemented in the Manchester 2002 Commonwealth Games included a Pre-Volunteer Programme focused on engaging hard-to-reach groups and using the high profile of the Games as a trigger for people to get involved. It aimed to move volunteers into paid administrative and clerical positions within the wider M2002 organisation or employment generally – 160 persons had done that by 2003, although the estimated figure is thought to be higher (Experian 2006). As part of their participation 2,250 people gained a Level 1 qualification in event volunteering, which was specially devised for Commonwealth Games volunteers. Surveys have shown high satisfaction rates amongst Commonwealth Games volunteers and a Post-Volunteering Programme has given them opportunities to volunteer at other major events (Faber Maunsell 2004).

The Pre-Volunteer Programme did help to include hard-to-reach groups in the Games but the total volunteer profile was still strongly biased to White people (91%) and people having participated in sport in the last 12 months (92%) (Faber Maunsell 2004). Although the Manchester Volunteer Programme is widely considered a success, the impact on the overall ‘culture of volunteering’ in the north west is relatively modest. The proportion of people who spent time organising sport on a voluntary basis is slightly higher (3 percentage points) in Congleton and Liverpool in 2003 than it was at the same time in the previous year. It has remained the same in Manchester and declined in Blackburn (MORI 2004b).

Young people

One of the few studies of relevance to young people's involvement in past Games is the research that was undertaken to compare the experiences of student and older volunteers at the Lillehammer 1994 Winter Games and Sydney 2000 Games (Kemp 2002). It was widely recognised that volunteers were crucial to the successful staging of both Games, both having large amounts of young people in their volunteer forces.

Interestingly, the study found a difference between student and older people's motivations for volunteering. Older people were much more likely to be motivated by pride in their country and its culture and a desire to be valued and needed by society than younger volunteers. The students tended instead to be attracted by social factors and the opportunity to gain employable skills. This was consistent with the findings of UK Sport's evaluation of the motivations and expectations of volunteers prior to the Manchester 2002 Commonwealth Games (UK Sport 2003).

Benefits gained by student volunteers in the Kemp study were as follows:

- An increase in social skills by getting the chance to work with people from different places.
- Greater employment opportunities through an expanded personal network.
- Experience working in a service environment – 88% of Australian and 76% of Norwegian students felt they had expanded their job skills.
- Learning about their society and the history of their city.

These benefits illustrate the importance of learning and skill development opportunities for young volunteers. The Lillehammer and Sydney studies found a close link between learning and satisfaction with the volunteering experience.

There was not a comparable study for the Manchester 2002 Commonwealth Games, where the research tended to focus on the broader volunteering effort (as detailed in the adult volunteering section). However, the Northwest Development Agency's report into the benefits of the Games (Faber Maunsell 2004) stated that 13,500 young people across the north west were involved in sporting, cultural and volunteering activities through the out of school hours Passport 2002 initiative. The soft and sustained benefits of this initiative were not set out in the report.

5.1.4 Environmental sustainability

Awareness of climate change has been steadily growing for the last five years (COI 2007) and the idea of 'sustainable sport' is relatively new (Cashman 2006). In terms of the Olympics, any analysis of environmental impacts is difficult because the hierarchy of environmental concerns appears to change from one Games to the next. The development of public opinion has been particularly swift since the so called 'Green Games' in Sydney (London East

Research Institute 2007). Visitor carbon reduction was not an explicit aim of Sydney 2000 but it is now likely to be an issue of public scrutiny for London 2012 with growing levels of concern about climate change (London East Research Institute 2007).

The primary focus of this section is the role of the Olympic and Paralympics in helping to reduce carbon emissions and the potential effects on attitudes and behaviours.

The evolution of greener Olympics

Although some environmental improvements have long been part of Olympic developments, most sources cite the Winter Games of 1994 in Lillehammer as the first credible attempt for a host city to 'go green'. The Lillehammer programmes included an ambitious waste management policy, the establishment of environmental specifications for the suppliers of goods and services and some energy-saving techniques. Atlanta 1996 also implemented some green measures, most notably in the form of a 300KW photovoltaic system on the aquatic centre roof (Cashman 2006).

Whilst the land remediation at the contaminated Homebush site in Sydney was a worthwhile environmental project by any standards (though the actual strategy followed by the Sydney organisers was vigorously criticised by Greenpeace at various points during the build up to the Games), it did not reduce the emission of harmful greenhouse gases and therefore cannot be thought of as part of the fight against climate change (Cashman 2006). More relevant to the current analysis was Sydney's efforts in terms of environmental design, the procurement of low impact materials and car-reduction initiatives. Transport during the Games worked well but Cashman concludes that:

"It is unlikely that the emphasis on public transport during the Olympic Games led to any major change in commuter behaviour, other than to encourage people to travel to Sydney Olympic Park by public transport when a major sporting or cultural event was held there."

(Cashman 2006)

There were some direct negative effects on the environment from Sydney 2000. The organisers were heavily criticised for the use of ozone depleting chemicals in the air conditioning of the Super Dome. Nonetheless, the achievements at Sydney were commendable and Greenpeace awarded the Games a 'C' in their overall analysis. One green coalition involved in assessing the Games pointed out that even the failings at Sydney had achieved publicity and educational value for the environment movement (Cashman 2006).

Unfortunately the achievements at Sydney were not built on at Athens 2004. The London East Research Institute states that:

"The need to complete works on time led to an abandonment of many promises made about energy efficiency, waste management and

recycling during the construction process. There was no attempt, as there had been at Sydney, to harness the power of the sun for energy; and there was no use, as there had been in Atlanta, of LPG-powered or other low-emission vehicles for VIP transport.”

(London East Research Institute).

However, according to the London East Research Institute, a major positive of the Athens Games' environmental legacy was a much-needed overhaul to the transport infrastructure such as the metro, the introduction of a fleet of gas-powered buses, the improvements to urban rail, the tram and a new ring road. There has been considerable debate as to the extent of their use after the Games though it is probably too early to tell what the long term usage will be (London East Research Institute 2007).

Innovations in construction and technology

Showcasing technical solutions are an important role for the Olympic and Paralympics. Building practices are an important way in which London 2012 will be judged 'sustainable' or otherwise. Levett outlines a list of practices that will reduce carbon emissions. A number of them are surprisingly low-tech such as using reclaimed materials and adapting existing structures wherever possible rather than relying on new build (Levett 2004). This was done extensively in Atlanta but the beneficial effects on carbon emissions were not celebrated at the time as it was viewed as a cost-saving measure.

Innovations in energy generation in buildings have been a positive legacy of previous Olympic and Paralympic Games. Greenpeace awarded Sydney's Organising Committee an A+ in their report card for their use of solar energy in the athletes' Olympic Village (scorecard reproduced in Cashman 2006). The symbolic power of such developments can help 'pump prime' businesses to deliver similar technologies to other clients. Deo Prasad and Mark Snow at the University of New South Wales wrote in 2000 (cited in Cashman 2006) that 'knowledge gained from the solar village thus far has already facilitated a rapid increase in the number of developments proposing to integrate solar energy'. The same authors added in 2004 that the solar innovations at the Olympic village 'are capturing the imagination of individual homeowners through government support programmes such as the PV (photo voltaic) rebate programme' (cited in Cashman 2006).

Technical standards do improve and mega-events such as the Olympic and Paralympics can act as a catalyst. However, 'techno-fixes' are not the solution to environmental problems because they tend to go hand in hand with increased demand and use. For example, although cars have become more energy efficient, we use them more and emissions from road transport are higher than ever. Similarly, although fridge freezers have become more energy efficient, the desire for second fridges has largely eliminated any carbon savings (Sustainable Consumption Roundtable 2006). This indicates that significant behaviour change must be part of the solution in tackling climate change.

Eco-communities

One of the pledges for London 2012 is that the developments will become a 'blueprint for sustainable living'. Existing examples of eco-communities might help us understand what 'sustainable living' is and how people can be persuaded to do it. There are two main communities that may prove to be a useful comparison for London 2012⁴. These communities have been selected for being fairly large and mainstream in terms of the type of people that live there (in other words they were not set up as 'spiritual retreats' in the way that some eco-communities were).

- Beddington Zero Energy Development (Bedzed) in South London offers a mix of tenures for key workers, shared ownership, social housing and sale. The development claims to be the largest eco-community in the UK and has won numerous awards for its sustainable innovations and design.
- Vauban in Freiburg, Germany is a development with a mix of student dormitories, houses and apartments. Built on the site of a former French barracks, the development is run along car-free principles.

These two communities would be excellent study tour destinations for the Olympic Park designers, if indeed they have not already visited. However, the limited literature about these sites tends to centre on technical achievements and best practice case studies rather than empirical evidence around the impact on people's lifestyles. There is also an emphasis on the governance structures and project management procedures, which enabled the developments to happen. There is very little about how living in an eco-community affects attitudes and behaviour. A number of major methodological challenges exist in this question. One is that a proportion of those living in such schemes are typically highly motivated by environmental issues already. The other is that most of the data seem to emanate from the operators of the schemes themselves rather than from independent sources. With those caveats in mind, the indicators that living in an eco-community has a positive influence on sustainable behaviours are fairly good. In Bedzed, consumption figures of energy and water are way below the UK average⁵. At Vauban about 50% of households in the parking-free area have chosen to live without a car⁶.

One independent study looking at smaller scale 'eco-communities' supports these findings. This study used a small qualitative sample to look at the attitudinal and behavioural effects on householders from generating their own energy through wind turbines, solar panels or Combined Heat and Power (CHP). The study found that even residents who had not 'actively' chosen the technology because they were living in social housing, began to identify with the sustainable aims of the technology and alter their lifestyles accordingly. This effect was not universal however and did depend on how well the

⁴ Greenwich Millennium Village has not been recommended as a useful comparison because according to Levett the project was beset with organisational difficulties and the ensuing designs were not as sustainable as they might have been (Levett 2004).

⁵ www.peabody.org.uk

⁶ Case study on the CABE website www.cabe.org.uk

purpose of the technology was communicated to residents through face-to-face conversations or literature (Hub Research Consultants 2005).

The findings suggest that living in housing with specially designed sustainable features inspires people to further environmentally-friendly behaviour. The next section looks at the role the Olympic and Paralympics might play in communicating sustainable living to a wider public.

The public and sustainable behaviour

Can environmental measures at 'mega-events' inspire the public to 'go green'? Levett has already argued the case for using the symbolic power of the Olympic and Paralympics to showcase sustainable lifestyles on a collective and individual level:

"The Olympics offer a wonderful opportunity...because they are a huge special occasion, which will take all participants out of their normal routines briefly but intensely. The barrier of habit and inertia will already be broken. If they see and experience sustainability in action in the buildings, planning, movement, infrastructure and consumption during the Olympics, they may well carry the change back into normal life."

(Levett 2004)

To date, acting in an environmentally friendly way has been linked most strongly in consumers' minds to recycling. In surveys, this is consistently the most common environmental activity people are doing and the proportion of people recycling paper, glass and plastic has almost doubled since 2001. In 2007 approximately three-quarters of people said they recycled these materials, mainly via regular doorstep collection (DEFRA 2007a). According to research conducted by Opinion Leader, recycling has dominated people's frame of reference and meant that they have struggled to think about other ways they can make a difference (Sustainable Consumption Roundtable 2006).

A number of sources agree that the more difficult behaviours to change are those around transport. Brook Lyndhurst conducted a quantitative survey with over 1,000 people and found that although respondents expressed an appetite for behaviour change and were looking for leadership from government, car usage was an exception and they conclude that 'changing people's attitudes towards their cars will be exceptionally difficult' (Brook Lyndhurst 2004). Even if people theoretically want to change their habits, they often feel trapped by infrastructures and social norms which seem to make driving necessary (Jackson 2006). According to new survey data based on responses from over 3,000 people, less than a fifth think a lot of people in the UK are willing to use a car less, or fly less. The same survey found that over half strongly agreed or tended to agree that they "would like to reduce their car use but find that there are no practical alternatives" (DEFRA 2007a).

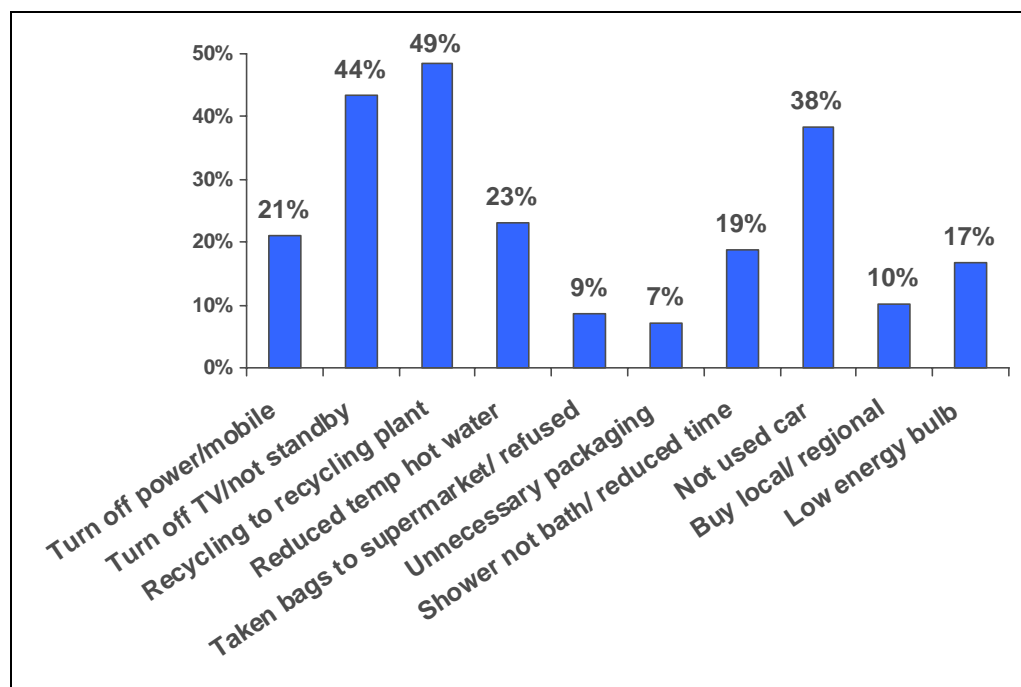
Qualitative research has found that people feel threatened by suggestions they should fly less, though for different reasons to car use. Overseas travel is

a major aspiration for people and a regular break in the sun considered a necessity by many (Sustainable Consumption Roundtable 2006). However, climate change is a fast moving research area and there are some indications that attitudes towards air travel are shifting. A National Statistics survey has found that 44% said they thought that air passengers should pay for the environmental damage flying causes and 17% said they felt guilty about taking short-haul flights (DEFRA 2007a).

Acting sustainably is not always motivated by an altruistic concern for the environment. Home insulation and energy efficient appliances both have cost saving benefits. In addition, consumers may not always be aware that they are making sustainable choices. The market share of 'A' rated (most energy efficient) fridge freezers has risen from 1% to 76% in the five years to 2005. This is driven partly by consumer demand but also by manufacturer leadership in this area (Sustainable Consumption Roundtable 2006).

There are many ways consumers can help limit climate change and too many to be discussed in detail here. Perhaps the most useful summary of what the most 'popular' behaviour changes are is contained in a report by Opinion Leader on the results from a Citizen's Summit on Climate Change held in May 2007 with around 140 members of the public. The research was designed to meet participants twice: once to brief them on a series of issues and potential actions, and after a period of some weeks to meet again to discuss how changing behaviours worked in practice. The following graph shows the behaviours participants either did more of or tried to do for the first in the intervening period:

Q: Which of these behaviours did you try between the regional workshops and today?



Number of people voting: 138

The popularity of not using the car is somewhat surprising given the established literature about how difficult it is to change transport habits. Participants said they were motivated by a range of factors including an enjoyment of walking/cycling, health, good weather and the ability to consolidate journeys (Opinion Leader Research 2007)⁷.

It is well established in the literature that there are plenty of barriers to acting on climate change (Darnton 2004a; Jackson 2006; Opinion Leader Research 2007). About a quarter of people agree with statements such as “It takes too much effort to do things that are environmentally friendly”, and “I don’t believe my behaviour and everyday lifestyle contribute to climate change” (DEFRA 2007a). Meanwhile, 22% of people feel that they have no influence on limiting climate change at all (COI 2007). The remainder of this section looks at how best to overcome these barriers and embed sustainable behaviours in people’s lives.

5.1.5 Methods of behaviour change

The use of media, and specifically television advertising, to drive behaviour change has long been used by government departments. Some campaigns appear to have helped cause mass cultural change, such as those condemning drink driving or encouraging seat belt use (though it is important to remember that these campaigns were also accompanied by legislative penalties) (Collins 2004). Promoting sustainable behaviours through mass media advertising has been attempted by the previous two administrations in the campaigns ‘Helping the Earth Begins at Home’ and ‘Are you doing your bit?’ Such campaigns are generally agreed to have had a disappointing impact on social norms and ingrained habits relating to environmental damage, perhaps because these behaviours are more varied and complex than other behaviours such as driving (Hobson 2002).

Perhaps because of the shortcomings of these campaigns, more recent attempts to change behaviours have involved more background research and adopted more innovative methods. Numerous sources agree that the best behaviours to focus on might be those which are simple, measurable and reinforcing (Brook Lyndhurst 2004; Darnton 2004a; Jackson 2005; Jackson 2006; Opinion Leader Research 2007).

One way of reinforcing behaviour change is to give positive feedback on what difference is being made. Pilots conducted by Guildford Borough Council and Surrey University raised the number of people recycling by up to 39% - to a high of 90% - simply by giving householders feedback on how well their street was doing compared to others (Sustainable Consumption Roundtable 2006). Recent innovations in Northern Ireland in ‘pay as you go’ style energy meters mean that people can have a meter on the wall which gives real time

⁷ This is an initial summary report so the results need to be treated with caution. A full report on the overall findings is due for publication by DEFRA.

feedback on energy use. The new system has been popular and now one in four consumers in Northern Ireland is using the new Keypad meters. Consumers have made, on average, consumption savings of 3.5% (Sustainable Consumption Roundtable 2006).

New policy initiatives have tended to emphasise the important role of social marketing and group work in achieving behaviour change. Defra's Environmental Action Fund is funding around 35 community based projects in sustainable consumption around the country. These projects include schemes such as Wiltshire Wildlife Trust's Climate Friendly Towns and Villages and the National Trust's Small Steps, Big Changes. The full evaluation will be available when the current three year funding programme comes to an end (Sustainable Consumption Roundtable 2006).

The funding of such schemes has been prompted by a substantial evidence base showing that 'unfreezing' bad habits is more successful in groups (Collins 2004;Diagnostics 2005;Futerra 2005). One example of group work comes from The 1-2-3 Global Warming Campaign which was conducted by a church congregation in the USA in 2001 to inform people about the dangers of global warming and spur them into action and pledge to do something about it. An evaluation of the programme found that 98% of the households fulfilled all (55%) or some (43%) of their pledges. 95% planned to continue their actions and 63% took additional actions against global warming on their own⁸.

Another example of the group approach is Global Action Plan's (GAP) Ecoteams. This programme brings small groups of people together to talk about and initiate environmental lifestyle changes. The approach has been adapted for use in a number of countries. In the United States households that participate in Ecoteams produce on average 42% less garbage, use 25% less water, produce 16% less CO₂ and use 16% less fuel for transportation⁹.

One critique of these approaches comes from Kersty Hobson who undertook an evaluation of the Action at Home programme (a UK version of the GAP Ecoteams method) using qualitative methods. Just under half of the participants interviewed had made changes to one or more of their domestic practices as a result of taking part in the programme.

"These were all low cost or no cost behaviours such as turning taps off when brushing teeth, which were easy to do"

(Hobson 2002: 316).

However, she also identified a strong lack of scope for change in other areas because habits were ingrained or participants felt trapped by circumstances and societal pressures. She also found that participants expressed anger that government might be sidestepping the real forces behind consumption, such as manufacturing, and placing too much onus on citizens and this undermined their motivations for the programme.

⁸ <http://www.cbsm.com/CasesDatabase/Detail.lasso?-KeyValue=138&-KeyField=ID>

⁹ <http://www.cbsm.com/CasesDatabase/Detail.lasso?-KeyValue=84&-KeyField=ID>

These findings echo the Sustainable Consumption Roundtable's concluding report "I will if you will". This report argues that consumers only feel able to implement lifestyle change if they feel that business and government are matching their efforts and that they are part of something bigger. The authors argue that:

"The focus needs to be on creating a supportive framework for collective progress, rather than exhorting individuals to go against the grain"
(Sustainable Consumption Roundtable 2006)

The qualitative workshop conducted as background to the report uncovered a strong desire from the public for personal leadership from politicians – particularly in terms of them flying less and using sustainable transport.

The Olympic and Paralympics do present a rare opportunity to showcase business, government and individuals working together for the common good and for leaders to demonstrate their own commitment to environmentally sustainable practices. Nonetheless, there are risks to this approach if high profile individuals involved in the Olympic and Paralympics are not seen to be doing 'their bit'. The recent music concert mega event 'Live Earth' was strongly criticised in the UK press for using celebrities with manifestly unsustainable lifestyles and for flying people to the event.

5.1.6 Measuring sustainability

Nations traditionally measure progress through tracking and analysis of GDP. There have been longstanding efforts amongst academics to widen this definition to include measures of social and environmental conditions. GDP alternatives pre-date the official advent of sustainable development at the Rio de Janeiro Earth Summit in 1992 and include the influential Index of Sustainable Economic Welfare devised in 1988 (Christie 1998). More recent models include the Happy Planet Index put forward by the New Economics Foundation which combines measures of environmental impact with wellbeing (Thompson 2007).

These indices involve complex economic modelling on a national scale and are not appropriate for direct application to a stand alone mega event such as London 2012. However, the developments in measuring wellbeing, quality of life and life satisfaction could be used to good effect in surveys on visitors, spectators and residents to help understand the 'feel good' factor; an important legacy of the event.

The 2005 Sustainable Development Strategy, *Securing the Future*, set out a commitment for Government to explore the concept of wellbeing. Consequently, the development of definitions and indicators around wellbeing has been the subject of considerable recent research including major reports by Dolan et al (Dolan 2006a;Dolan 2006b). Draft indicators for wellbeing have been included in the latest update of sustainable development indicators

published by the Government in 2007. They include measures around psychological health, self reported life satisfaction and the frequency of engagement in positive activities, including sport (DEFRA 2007b).

Another important measure for London 2012 will be the carbon footprint of the event itself. Measuring carbon emissions and the offsetting of those emissions is a complex science and the analysis of sporting events in this way is still in its infancy. The BRASS unit at the University of Cardiff is pioneering methods to help understand the carbon footprint of major events and their methodology could be adapted and improved for London 2012 (BRASS 2007).

5.1.7 Conclusions

Assessing London 2012 in terms of the sustainable economic legacy will be problematic. As described above, economists working on sustainable development have tried to move away from a reliance on GDP, yet it remains the dominant framework for how we understand economic success. London 2012 will necessarily need to report on the impact in terms of GDP but this will be imperfect in terms of understanding sustainability. One way of broadening out concepts of economic wellbeing will be to implement a rigorous ethical procurement and sponsorship programme for London 2012. In this way London 2012 could have a wider impact on public awareness and uptake of ethical goods, but only if it is part of a coherent communications scheme.

One of the pledges for London 2012 is to transform the heart of East London. Previous Olympics cities have attracted substantial business investment as a result of the high profile of the Games. There is good reason to hope that East London will be successfully regenerated, particularly as plans were in place prior to the Olympic and Paralympic bid, though the evidence suggests that there is a risk that those most in need could miss out on the economic benefits, such as jobs, arising from the Olympic and Paralympics unless proper networks are put in place well before the event (Crookson 2004;Raco 2004). The evidence suggests the feel good factor arising from the Games can bring people together and have a positive impact on how people perceive their communities and their city (London East Research Institute 2007;Ohmann 2006). This benefit could apply across the UK (Kornblatt 2006).

The legacy to the environment of London 2012 is likely to be mixed. Carbon footprint calculations and the controversies around the prevalence of air travel will characterise London 2012 more than previous Olympic Games (London East Research Institute 2007). An Olympic Park designed around sustainable principles will be a positive legacy for East London and the nation as a whole, but organisers need to ensure that the aims of the project are protected against deadline pressures and the route towards sustainable lifestyles is communicated properly to residents.

5.2 Inspiring young people to take part in volunteering and cultural activity

This section looks at the potential for inspiring young people to participate in community volunteering and cultural activity through opportunities inspired by London 2012. This will be important as a means of achieving broader participation and identification with the Games. The Demos report, the Biggest Learning Opportunity on Earth (Tims 2007), argues that past Olympics have focused on providing a showcase rather than creating meaningful cultural activities. It argues that a sustained legacy for young people can only be achieved if the top-down approach taken is avoided. London 2012 has set itself a broader challenge and relevant lessons and robust evidence from approaches taken by past Games is limited. This section, therefore, looks at community involvement patterns to assess the potential for getting young people involved and identify lessons that can feed into the design of Olympic and Paralympic inspired projects. The theme of young people volunteering directly for the Games is covered in the volunteering section of this report.

5.2.1 Volunteering patterns

The Home Office Citizenship survey takes place every two years (from 2001) and looks at perceptions of Citizenship and involvement in local communities. It takes a specific biannual measure of volunteering patterns and categorises volunteering as either formal or informal. Informal volunteering was defined as unpaid help **as an individual** to someone who is not a relative. Formal volunteering was defined as unpaid help given **as part of groups**, clubs or organisations to benefit others. Formal volunteering in the general population rose from 39% to 42% between 2001 and 2003. The 2003 figures meant that 17.9 million people in England and Wales volunteer formally at least once a year.

Recent Home Office Citizenship research findings also show an increase in formal volunteering activity among young people that counters concerns arising from an apparent fall discovered by the 1997 National Survey of Volunteering and discussion about young people's disengagement from the political process (Gaskin 2004a). Findings from the 2005 Survey (Kitchen *et al.* 2006) contained in Table 2 showed that over half (53%) of 16–19 year olds participated in formal volunteering activities in the last 12 months. This was higher than any other age group and 11% higher than formal volunteering rates for 20–24 year olds.

Table 2: Participation in voluntary activities in 12 months before interview, by age and sex, 2005

	Once a month (%)		At least once in last year (%)		Sample
	Informal	Formal	Informal	Formal	
16 – 19	50	32	78	53	331

20 – 24	44	26	75	42	436
25 – 34	37	25	71	45	1,444
35 – 49	37	32	71	50	2571
50 – 64	34	30	68	45	2,199
65 – 74	36	31	61	40	1,185
75+	29	21	46	28	1,027

Source, 2005 Home Office Citizenship Survey (Kitchen, Michaelson, Wood, & John 2006)

These figures also represented an increase in participation from the 2003 Citizenship Survey, as shown in Table 3, when 41% of 16–19 year olds and 43% of 20–24 year olds participated in formal volunteering activities (Home Office 2004a).

Table 3 Participation in voluntary activities at least once in the 12 months before interview, by age and sex

Age	Informal (%)	Formal (%)	Sample
16 – 19	67	41	731
20 – 24	69	43	1,587
25 – 34	66	49	2,579
35 – 49	59	43	2,292
50 – 64	59	37	1,227
65 – 74	44	27	1,067
75+			-

Source, 2003 Home Office Citizenship Survey: (Home Office 2004b)

Informal volunteering of 16 – 24 year olds has remained consistently higher than any other age group across the lifespan of the survey.

A literature review undertaken by the Institute of Volunteering Research (Gaskin 2004a) found evidence that when projects are targeted and designed in the right way then they can be successful in reversing traditionally low participation of the most alienated and at risk young people. One example cited was Positive Futures that engaged nearly 35,000 at risk 10 – 19 year olds in sports initiatives.

A report by the Institute of Volunteering Research (Institute for Volunteering Research 2004) commissioned by the Home Office to inform the Russell Commission looked at the findings of the 2001 Citizenship survey (Attwood *et al.* 2003) in detail and conducted further qualitative and quantitative research among young people. Their analysis of the 2001 survey included a breakdown of formal volunteering by type of activity. This is shown in Table 4.

Table 4: participation in formal volunteering at least once in the last 12 months before interview, by field of interest and by age and sex

	Male (%)	Female (%)	Total (%)
Sports/exercise	60	34	47
Education	*	35	26
Hobbies	33	24	28
Children's activities (outside school)	24	26	25
Health/ disability/ social welfare	*	*	11
Environment/ animals	*	*	9
Adult education	*	*	15
Sample size	147	187	334

Source, 2001 Home Office Citizenship Survey

**The gender breakdown for these fields of interest was not provided in the report*

The table shows greatest volunteering participation for 16 – 24 year olds was in sports/exercise related activities. However, this was much more popular among men (60%) than women (34%). The 2001 survey also found that the most common type of volunteering activity undertaken by young people was helping to run an activity/event (55%), followed by raising money (49%) and offering 'other' practical help.

This was consistent with research undertaken by the independent charity v launched following the Russell Commission to inspire young volunteers. Their research (Dubit 2007) aimed to discover issues that 16 - 25 year olds would be likely to act on, and sport (16%), friends (14%) and music (12%) came out on top. However, sport was a much stronger motivator for males (24% stated this was a motivating passion) than females (less than 9%).

Just as encouraging, the 2005–06 report of the school sport survey (TNS 2006) found that the percentage of pupils involved in sports volunteering had risen during the three-year lifespan of the survey from 9% (in 2003–04) to 13% (in 2005–06). Existing volunteers should be seen as a key resource, as the most common route into volunteering is through word of mouth. In the 2001 Home Office Citizenship survey (Attwood, Singh, & Prime 2003), being told by someone else already involved was for 46% of young volunteers the most common route into volunteering and school, colleges and universities was the second highest at 39%. The Institute Volunteering Research report (2004) highlighted the importance of these aspects, as well as peer advocacy and promotional campaigns to increase public recognition.

5.2.2 Views of volunteering

Motivations

The Institute of Volunteering Research literature review (Gaskin 2004a) put forward evidence that young people were more likely than older age groups to volunteer because the work 'is connected with my needs and interests' and because 'I thought it would give me the chance to learn new skills'. They are also motivated by having a good time; more than two-thirds of 15–19-year-olds in a 1998 survey (Gaskin 2004b) stated that volunteering offers the chance to enjoy themselves and have fun. Altruism also acts as a motivator, with a sense of satisfaction and increasing involvement in causes given as

evidence for this. Research commissioned by the Scouts (nvpSynergy 2007) appears to reinforce this with seven out of ten 13–18-year-olds stating that 'making a difference' is an important value.

These drivers could, however, differ with age, with social and altruistic aspects being stronger motivators for young teens and career development for older teens. However, the Institute's literature review (Gaskin 2004a) pointed out that those in full-time education or employment volunteered to gain a sense of achievement and satisfaction. Skill development was understandably more of a priority for low income groups.

Barriers

The Institute of Volunteering Research literature review (Gaskin 2004a) usefully categorises the barriers to volunteering into supply and demand side issues.

On the supply side, barriers were lack of time, competing demands, unpredictability of change in young people's lives, the desire to earn money and lack of confidence. The report focused on young people's reluctance to commit for any great length of time out of fear that they would let people down or be pressured to take up more activities. Rising concerns about debt and falling benefits were also issues for young people who tended to focus on paid employment. The Institute's research (Institute for Volunteering Research 2004) found that young people often had a narrow view of volunteering and lacked confidence in their ability to participate or contribute something meaningful. The lack of status among teenagers of volunteering was also identified as a key barrier.

On the demand side, there are perceived and actual barriers imposed by organisations, negative attitudes towards young people and lack of readily available information. Both the Institute of Volunteering Research's literature review and research report (published in 2004), highlighted the lack of advice and guidance as an issue preventing more young people volunteering. They also found that a lack of proper consultation and consideration of young people's needs by organisations inhibited young people's willingness to get involved.

Benefits of volunteering

A study by the National Youth Agency (in 2007) into young people's skill, knowledge and attitude development deriving from volunteering identified the following outcomes:

- increase in confidence and self-esteem, a range of communication skills and ability to work with others from a range of circumstances
- volunteering as a catalyst for further learning, through increased confidence and re-engagement
- practical skills related to their specific experiences of volunteering.

Crucially they found that volunteering can benefit young people at all levels of achievement to re-engage in learning and prepare for the workplace. Young people contrasted learning through volunteering more favourably than learning in other settings. In particular, they appreciated the opportunity to meet a broader range of people, take up new roles and develop their interpersonal skills.

An evaluation of the Millennium Volunteers sport programme (Eley & Kirk 2002) found that twice as many gave 'working in the community' as their prime motivation for volunteering after the programme than before when they were more focused on having fun and skill development. This suggests that more and broader social benefits ensue than young people envisage. Enjoyment and self-esteem benefits were most highly rated.

5.2.3 Inspiring involvement in volunteering

The research evidence shows that increasing volunteering patterns among young people and their natural interest in sports related activities offer real opportunities for London 2012 to inspire young people's involvement in community projects. If the benefits of successful volunteering programmes are replicated in 2012 projects, then there is potential to achieve a real lasting legacy for young people. However, project design and promotion need to follow existing best practice.

Key aspects to consider when designing a volunteering programme drawn from the Institute of Voluntary Research (Gaskin 2004a; Institute for Volunteering Research 2004) and National Youth Agency reports are as follows:

- the importance of using networks and 'relevant' role models to promote opportunities and challenge volunteering stereotypes
- tailoring opportunities to personal needs, circumstance and interests
- the need to stress a wide range of motivations: rewards, social aspects, altruistic, experience and career prospects
- ensuring projects are designed so that young people are able to take ownership, develop skills and achieve recognition. Formal recognition was particularly important for young people with no record of achievement.

5.2.4 London 2012 related research

Research conducted by Demos (Tims 2007) into the opportunities for engaging young people in cultural activities for London 2012 was conducted in South and East London and the young people interviewed had a good understanding of London 2012 as a result. However, they struggled to see how the Olympics would reach out to them on anything other than sporting terms. Many felt the Olympics would transform their communities but did not feel as though they had much control over what happened. Demos argue for the Games to be used as an enabler rather than a centrally imposed theme

that young people cannot relate to easily. They feel the best chance of success would be projects inspired by young people that make the most of the resources, impetus, networks and enthusiasm that the Games bring. There should be a clearer link to young people's aspirations than the top-down projects common in past Olympic and Paralympics.

5.2.5 Measures

Measures for tracking the extent to which young people's participation in community activities has been inspired by 2012 should include more generic volunteering measures, such as:

- volunteer profile (in particular so that hard-to-reach and at-risk groups can be identified)
- past volunteering activity
- enjoyment of, and satisfaction with, activity
- sense of satisfaction and reward
- value to the community
- evidence of broadening social network and interests
- gains in confidence and self-esteem
- sustained involvement in community activities
- impact on values/views of citizenship
- gain in skills, qualifications and employability
- direct link to employment.

The value of London 2012 in inspiring young people's involvement could be judged by comparing Olympic and Paralympics and non-Olympics themed projects, to see if the Games did the following:

- widened volunteer profile
- increased enthusiasm, enjoyment and satisfaction;
- was relevant to local communities
- built networks
- lengthened involvement in community activities;

Careful tracking of the number of Olympic and Paralympic themed projects and participants should also be put in place.

5.2.6 Conclusions

Young people are volunteering in greater numbers and demonstrating an increased enthusiasm for getting involved in projects and issues relevant to them. London 2012 offers an opportunity to generate enthusiasm and momentum behind community-based projects. However, it must be recognised that the Olympics theme is unlikely to be sufficient to inspire young people's participation. Young people must be able to see how they can benefit

from getting involved and be given a genuine sense of ownership of projects for them to succeed. It is also important that flexibility is provided so that projects can be adapted to reflect young people's interests and circumstances. 'One size fits all' projects are unlikely to inspire involvement beyond enthusiastic and engaged young people.

5.3 Sports Participation

"The Olympic Charter aims to encourage and support the development of sport for all. There is an intention towards a virtuous circle: sport for all feeds elite sport which, in turn, it is hoped, will inspire more people to participate. Trickle-down and knock-on effects are assumed with the affective charge of the Games, the role models of the athletes, the infrastructure and expertise mobilised in putting the Games on and extensive global broadcasting of Olympic sport are all key ingredients in the process."

(London East Research Institute 2007)

This paragraph encapsulates the expectations attached to large-scale events such as the Olympic and Paralympic Games. Assumptions are made that people will want to take up, or do more, sport or physical activity after watching, live or on television, the best athletes in the world compete against one another. These same assumptions about a sporting legacy were made for Sydney 2000 (Cashman 2006) as they are currently being made about London 2012. An impact study for the London Games sets out potential benefits and expectations in terms of participation and infrastructure.

"By hosting the Olympics in 2012, London expects to achieve a significant sporting and cultural legacy. The sporting legacy would take a number of forms [including] increased participation in sport."

(Price Waterhouse Coopers 2005)

Such statements can be used to help justify the public funding of sport (Veal 2005), for whilst it is possible for mega-events to turn a profit, the infrastructure costs at the outset are likely to require public investment.

This section seeks to answer the question whether or not claims about an increase in mass participation, increased sporting and physical activity amongst the general public, are justified.

5.3.1 The challenge for young people's and adults' sport participation in the UK

If we are to assess changes in levels of sporting participation, it is important to understand current levels and the factors that influence participation. Data on activity levels fluctuate according to definitions and methods but, broadly speaking, the majority of the UK population participate in some form of sporting activity at least once a year although less than a third are 'regular' participants.

Defining participation

Comparing levels of sporting participation is difficult due to differing interpretations of what constitutes an active participant. For example, and in relation to the UK, DCMS's Taking Part (Aust 2007) survey counts any activity in the past 12 months, as does Veal (Veal 2005) whilst the Active People survey (Ipsos MORI 2006) asks about 'regular' participation, defined as 30 minutes of activity on at least three days per week. MORI's household survey (MORI 2004b) measures activity at two levels; in the last four weeks and the last 12 months. Furthermore, some surveys include within their definitions activities such as walking and less physical sports such as snooker whilst others do not.

Comparing across different methodologies would also produce variations in data. This is highlighted in Veal's assessment of Sydney 2000 (Veal 2005) where the interviews changed from telephone to face-to-face and different age groups were included, bringing into question the value of the trends data.

It is crucial in assessing change that methods and definitions of participation are clear and consistent between baseline and post-event monitoring if true increases are to be seen. Wider questions could also be asked about whether the amount of leisure time or disposable income available to the general population has changed.

Current levels and trends

The difference between those taking regular activity and those who are active is striking, 21% are regularly active according to the Active People survey (Ipsos MORI 2006) and 69% do something once a year according to Taking Part (Aust 2007). This indicates a great deal of scope for increasing levels of participation, if not the number of active people overall.

The Active People and Taking Part surveys both show that males, younger people, and those in professional and managerial socio-economic classifications are more likely to participate in sport; a finding supported in a report for the Scout Association (nvpSynergy 2007). Again, more even distribution across the different groups or increases in activity for particular groups may be more sophisticated targets than raising participation overall.

Both the Active People and Taking Part surveys show that most people's physical activity is individual and/or health and fitness related, such as swimming, jogging or going to the gym. Many of the most popular activities amongst the general public are not Olympic sports; for example swimming, cycling, football, badminton and jogging/running are set against recreational walking, golf, aerobics, snooker and tenpin bowling in the most popular activities across the two surveys. Thus, the question can be asked as to whether the Olympic and Paralympic Games, with its emphasis on track and field and competitive sports, is likely to introduce people to new activities or increase levels of activity in non-Olympic activities.

Age and participation

Participation levels are generally higher amongst younger people (Aust 2007). The school sports survey (TNS 2006) and household survey (MORI 2004b) both bear this out, showing high levels of participation amongst school-age children. Other data, such as the Active People and Taking Part surveys show the highest levels of adult participation amongst the 16–24 age group and dwindling levels of participation with increased age. Stepping further back, the Scout Association (nvpSynergy 2007) report shows participation in terms of membership of sports clubs falling from around a half to a third between ages 13 and 18. Recent research reported in the *Guardian* indicates that “activity peaks at around 11 and children take even less exercise as they go through adolescence”. (*Guardian* Newspaper 2007a)

The TNS study shows high levels of activity in and out of school hours – 80% of pupils are reported to have PE or school sports for at least two hours per week, meeting the Government guidelines. It should be noted that the survey focuses only on sports partnership schools, i.e. those with a formal partnership with a specialist sports college, so may not be representative of all schools. This proportion has increased over recent years but the increase mostly reflects increased curriculum time rather than out of school hours activity. These schools also have good club links, especially with football, cricket, rugby union, dance and athletics clubs. MORI data support these high levels of participation but also show a great deal of enthusiasm for participation; around 90% of children across the four regions said they enjoyed their PE lessons (MORI 2004b).

5.3.2 Factors which influence participation

Foster *et al.* (Foster 2005) argue that a range of psychological, biological, social and environmental factors influence the choices individuals make about their levels of physical activity. They argue that this area requires further research to understand the complex interactions between the different factors. Gaining a theoretical understanding of how behaviour is influenced is beyond the scope of this exercise, however, the discussion does highlight the importance of not relying on a single factor to bring about change in the mass population. Individuals do not respond to these factors in ways that can be easily predicted and, consequently, cannot be used reliably to influence levels of participation.

Motivators

There is a great deal of research that highlights the factors that people identify as motivators to participation in physical activity. Health benefits and enjoyment appear to be the strongest motivators.

The Taking Part survey (Aust 2007) shows the main reason for participation is enjoyment (37%) and keeping fit (29%). It also found that swimming and fitness activities, such as going to the gym, were the most prevalent activity amongst adults. The Active People survey (Ipsos MORI 2006) of the most

popular sport-related recreational activities supports this finding. It shows that recreational walking, swimming and going to the gym are the most prevalent activities undertaken by people in England. With the exception of those swimmers involved in competitions, it is likely that increased health and enjoyment are primary drivers to participation for these activities.

The majority of surveys examined by Foster *et al.*'s systematic review (Foster 2005) also cite health in the main reasons given by people taking up or increasing levels of physical activity, with related reasons such as weight loss and social interaction featuring strongly in qualitative studies. Foster shows that most people understand the general link between physical activity and health improvement. However, they may not know the specific levels of activity required for health improvement and many think themselves to be 'active' despite exercising less than the recommended frequency or level of intensity.

The relationship between the choice of activity and the motivation for participating is reinforced through the Sporting Motivations research (TNS 2004). This indicates that people play most sports, particularly traditional competitive team and individual sports, for the sheer enjoyment (saying they are 'cool, fun, exciting') and others, including athletics, rowing, cycling and swimming, for their health benefits.

Barriers to participation

Lack of time, access to suitable facilities and cost are the main barriers to participation in physical activity whilst some people feel they are too unfit to take up any sporting activity.

According to Taking Part (Aust 2007), being less busy and cheaper admission prices would encourage more frequent participation amongst those who already do some level of sport. Non-participants say their health is not good enough (47%), they are simply not interested (18%) or have no time (18%). Time, location of facilities and health concerns are also prevalent in the MORI household survey (MORI 2004b). Foster *et al.* (Foster 2005) call for more research in this area, but feel that lack of opportunities and/or facilities is the main factor. They also feel that product-led provision, which fails to focus adequately on meeting personal needs, can inhibit participation – a view supported by Coalter (2007) and Brown and Massey (2001).

The same factors seem to influence spectators as well as participants. In a survey of Londoners (MORI 2003), 44% of respondents said they 'don't have the time' and 19% cite cost when asked why they do not visit or attend cultural events or leisure activities, including sporting events. This may be pertinent since some studies, according to Brown and Massey, draw an implicit link between attracting an audience to, and increasing participation in, a sport. Yet the link appears to be far from proven; for example, (Coalter 2007) cites Veal's notion of 'couch potato syndrome' where people watch sport but do not take part. Foster (2005) also notes that an increase in physical activity does

not follow, even when people want to do more and understand why they should.

Motivation and barriers for young people

Young people are motivated by the same things that motivate adults. Foster *et al.* note that health and enjoyment are the main motivators for young people, although they also say that young girls are more interested in fun and social interaction than boys and are motivated by a desire to change their body shape (Foster 2005). They also highlight age differences in the barriers to participation, saying that the fear of getting hurt is more of a deterrent to young people than a lack of spare time.

Whilst some of these issues are complex and not easily resolved, Foster concludes that recognising and addressing them could bring about change. Other issues are more easily addressed, such as increasing flexibility in PE uniform or offering different types of activity to increase opportunities. Providing private changing cubicles could allay some of the concerns young people have about participating in physical activity.

Does success of home athletes have an impact?

There are indications of a correlation between success of a national team and increased participation at grassroots level; however, it is difficult to separate the success from the many other influencing factors.

The Sporting Motivations survey (TNS 2004) asked respondents whether UK sporting success had had a positive effect on their own participation in sport. Only 12% (one-third of whom were aged 16–24) said yes, reducing to 6% who said they were generally doing more sport. Of these, just over a third (35%) said this effect had been inspired by a UK competitor or team, mostly related to Athens 2004 where Team GB had exceeded expectations through Kelly Holmes, Matthew Pinsent and other individual performances. Of all survey respondents, therefore, around 2% attributed at least some of their increased levels of participation to UK sporting success.

A report for sportscotland (MORI 2004a) similarly shows an increase in participation following the success of Scottish women curlers in 2002, who won Britain's first Winter Olympic gold medal since 1984 followed by another gold in the World Championships later that year. In the winter following these successes, ice rink managers reported increases of 6% in visitors for curling and club membership nationally rose by 3%. There is also evidence that cricket participation in England has increased since England's Ashes victory in 2005; the England and Wales Cricket Board (England and Wales Cricket Board 2007) reports a 51% increase in club membership between 2005 and 2007 and a 40% increase in membership of affiliated clubs in the period between the 2003 and 2007 cricket world cups.

Whilst these examples indicate that success in elite sport has led to increased participation, a number of other influences exist. In the case of curling, only

4% of the new curlers interviewed gave the recent success of the national team as the main reason for their participation (though more said it was a factor) whilst 9% said it was due to watching curling on television (which would include the Olympics). Far more cited the influence of friends (45%), initiatives to encourage participation (15%) or a desire to take more exercise (13%). In the case of the Ashes there were no specific data about the reasons for the increasing participation but the ECB claims a twenty-fold increase in investment in community cricket between 1997 and 2007 – for this investment to be worthwhile an increase in participation ought to be apparent irrespective of the performance of the national team. It could be argued that these are indirect influences, since people may be more amenable to recommendations or community initiatives if they have recently seen success at a national level. Nonetheless, such influences undermine claims that success alone is responsible.

There is no evidence of any long-term impact on participation of elite success, raising the question of whether such increases would be sustained once the memory of the success fades. Furthermore, those who say they have been influenced by success may have been physically active in other sports. This does seem to have been the case in the curling example and, if true on a wider scale, means that success simply encourages interchange between sports rather than increased participation in sport overall.

The evidence suggests, therefore, that success at a national level can translate into increased participation in sports. However, this may be an indirect link and one which is not sustained over the long term.

“Sporting success in terms of medals and even in terms of winning the host city bid might seem likely stimuli to attract young people into sport. However robust evidence is not apparent linking periodic international successes to significant and enduring uptake of sports.”

(London East Research Institute 2007)

Nor is it clear whether those who are attracted to a particular sport are active in another sport or whether success is enough to encourage sedentary sports watchers into players.

Coalter discusses whether sporting role models influence people’s propensity to participate. On the surface it might appear that seeing feats of excellence could encourage people to try and emulate them, just as children try to copy the tricks of professional footballers in the playground. The reality is, naturally, more complex. It is possible that elite performances can inhibit the general public from participating since they may feel that such high standards are beyond their reach, as Cashman (2006) notes.

Citing Payne *et al.* (2003), Coalter shows that simply being exposed to high performance athletes will not increase participation, a more ‘systematic and integrated’ approach is needed, which ties in with local-level role models. It appears, therefore, that role models can be too remote to directly influence participation.

5.3.3 The impact of past mega-events on sports participation

The previous section shows that a range of factors influences levels of participation. This section turns to the question of whether there is a specific impact from mega-events such as Olympic, Paralympic and Commonwealth Games. We show that it is not possible to bring about increases in participation levels through only staging mega-events, there is also a need for activities which run in parallel.

Lack of evidence

There is no clear evidence that large-scale events, including Olympic and Paralympic Games, encourage people to become more active in sport. A number of studies conclude that there is, at best, a weak impact, for example;

“Most of the evidence...suggests that major sporting events have no inevitably positive impacts on levels of sports participation.”

(Coalter 2007)

“The research indicates that there is evidence only of short-term increases in sports participation following the Games, and even that is ambiguous.”

(London East Research Institute 2007)

Both Coalter (2007) and Foster (2005) feel that theories about increasing participation are not fully understood nor sufficiently proven to make such a claim – there can be no simplistic assumption of a ‘trickle-down’ effect, whereby a high-profile sporting event effects activity at the grassroots level. Coalter explores how London 2012 can boost grassroots participation and improve the health of the nation, as the bid claimed it will, concluding that the Games need to be embedded within a broader strategy, which takes into account the complex factors that influence people’s intentions and actions, if sports participation is to be increased.

A report prepared for the Northwest Development Agency (Faber Maunsell 2004) quotes figures showing increased participation of 7% amongst adults in the UK and 19% amongst children aged 6–15 in the north west. Whether this increase was attributable to media coverage, attendance at the games, improved facilities, the numerous Games-related education and participation programmes aimed at young people, or other factors, is not explored. However, the authors do note that

“Some stakeholders...argued that the Games themselves only resulted in a small and short-term increase in participation in sport and that more proactive methods to encourage participation are required to have greater and longer term impact.”

(Faber Maunsell 2004)

A study by MORI (Ipsos MORI 2003) focused on the participation impact in four regions in the north west. It concluded that most of the local impact was economic or related to infrastructure and there was little positive influence on participation. Perhaps surprisingly, even in the immediate area, the Games did more to encourage spectators than participants:

“The Commonwealth Games has had little effect on the amount of sport Greater Manchester residents watch or play. However, it has had a more positive effect on the amount they watch rather than play.”

(Ipsos MORI 2003)

Veal and Toohey (2005) identify an increase in sports participation following Sydney 2000 but feel this cannot be attributed to the Games because of changes in survey design. They also note increases in non-Olympic sports as well as decline in some Olympic sports. Therefore the impact on participation is inconsistent and may reflect general trends, rather than an Olympic effect.

Coalter (2007) wonders whether there is a danger that investment in the Olympic and Paralympics may divert funding away from the community projects that are said to benefit. UEL research (London East Research Institute 2007) supports this concern.

There is no evidence of such negative effects in previous events, nor is there categorical evidence that denies a link between mega-events and increased participation, the problem appears to be an absence of strong, clear data. The data that does exist shows little or no effect.

Vigor, Mean and Tims (2004) conclude that a sustained increase in participation is not evident from past Olympics. They call for greater attention at grassroots, partnerships between schools, clubs and sporting agencies. Legacy of facilities also requires bottom-up development and consideration at an early stage in order to be sustainable.

Young people

The biggest leap in participation post-Sydney 2000 was in the 18–24 age group (Cashman 2006) where participation went from 63% to 70% compared with an increase from 49% to 51% overall. This is interesting since this means that the biggest participant group is also the most likely to be influenced by the Games.

A similar effect was noticed following Manchester 2002; 21% of schoolchildren claimed that the Games had increased their levels of participation and even more (25%) watched more sports.

“The impact of the Games on children is potentially greater than among adults. It is encouraging to note that a significant minority of the children surveyed (generally in excess of 20% across the four areas) stated that they had been encouraged to both watch and play more sport as a result of seeing the 2002 Commonwealth Games. This is in contrast with adults

who tend to admit less of an influence on their sporting habits – particularly with regards to participation.”

(MORI 2004b) Household survey

Again, this may be an indirect impact, in that the Games stimulated a great deal of activity targeted at young people and schools. However, it would seem that the high levels of participation amongst young people can be increased still more with the right kind of programme.

Facilities legacy

Mega-events generally lead to the building of new facilities and this investment in infrastructure could be said to contribute to the legacy of the Games. These facilities are built to the highest standard and, in theory, should enhance the sport and leisure provision in the local area for years to come.

Brown and Massey (2001) show that the building of new facilities does not inevitably encourage participation but, if the design and location take into account post-event use by the local community, then a valuable sporting legacy can be left. Their evaluation of Manchester 2002 shows some evidence that this was achieved and the local community now has access to, and is using, world class facilities, although they call for longer-term monitoring. (Cambridge Policy Consultants 2002) also felt the city had benefited from the new facilities, citing the half million users of the Aquatics Centre which exceeded the targeted levels.

In contrast, the swimming facilities left following the World Student games in Sheffield in 1991 did not reverse the decline in swimming attendances in the area as expected (Gratton 2001). Cashman (2006) found no link between improved facilities built for Sydney 2000 and increased participation, stating that “the creation of state-of-the-art facilities did not necessarily produce the desired legacy unless they were located in an appropriate place and targeted an achievable audience” (p. 178). Those that flourished, such as the Aquatic Centre, served an existing sporting need whilst others had no market and failed, either closing altogether or creating a burden on the taxpayer.

Achieving the balance between provision for elite and grassroots participation requires planning at an early stage with clarity of purpose. The success of this approach, specifically planning for post-event commercial use of the facilities, was commented upon in the Commonwealth Games Benefits Study (Faber Maunsell 2004). This report reinforces the importance of a multi-faceted approach to post-event participation. Whilst there are impressive facilities in Manchester for swimming, hockey and squash, the sporting legacy that the report describes involves initiatives by local or national sporting bodies, such as a coaching programme at the National Tennis Centre or Sport England’s Active Sports Talent Camps.

The London East Research Institute (2007) report also stresses the importance of forward planning to ensure that the facilities do not become

white elephants, advising that “It is essential that the sporting venues are accessible to local people after the Games.”

5.3.4 Measuring participation

Data on background trends are important to take into account if any changes in participation levels are to be attributed to a particular event – it would be incorrect to claim an increase was due to the Games if participation levels simply continued to follow an established upward trend. Conversely, maintaining levels of participation amidst a background of a declining trend may show an Olympic effect. For example, looking forward to London 2012, Coalter begins to set the scene, examining data from 1987 onwards and noting;

“An increase in sports participation in the 1980s has been followed by relative stagnation in the 1990s [and the data show] stubbornly persistent class based differences.”

(Coalter 2004)

Brown and Massey (2001) highlighted that impact evaluations frequently focused on economic rather than sporting impacts, a view echoed by Cashman (2006). Cashman also wonders whether the motivation to host major events is economic rather than sporting. This is not to say that economic motives are a bad thing, after all the most common reason for Londoners supporting the London 2012 bid was the economy (43% gave this reason) with only 10% identifying the impact on sport (ICM 2005). However, this does explain why most monitoring has been on economic effect rather than participation.

Where attempts are made to evaluate the sporting impact, a failure to build in evaluation at an early stage can lead to a lack of suitable data on which to draw robust conclusions. In contrast, Brown and Massey developed baseline measures for Manchester 2002, developing a pre- and post-event methodology and recommending longitudinal tracking to determine a long-term influence on the public.

Foster *et al.* (2005) propose a raft of measures to further understand why people do and do not participate in physical activities, allowing policy decisions to be made based on good quality evidence. This includes using quantitative and qualitative research and careful stratification of respondents, regarding age and life stage, levels of participation, disability.

Veal and Toohey (2005) showed that changes to survey design can make conclusions difficult to draw when looking at trends over time. The mixed patterns of increasing and decreasing participation in both Olympic and non-Olympic sports, and increase in total participation overall, also highlight the importance of understanding general trends in sporting and leisure activity to set any claims about an Olympic effect in context.

All these recommendations have common threads;

- Reliable baseline measures; to ensure participation levels pre- and post-Games are known.
- Long-term evaluation; which should provide contextual trends data as well as giving an indication of long-term impact.
- Broad, but clear definitions of 'participation'; in terms of frequency, intensity and the nature of activity.
- Drawing on a range of data sources; including national and regional bodies and individual sports clubs.

5.3.5 Conclusions

Hosting the Games in itself is insufficient to provide a sporting legacy. There is some evidence that mega-events do inspire some people to participate in sports more than they did before. However, this effect may only be short-lived or encourage already active people to take up new sports. The evidence does not demonstrate that a sustained increase in participation will occur. Nor is it enough to build new state-of-the-art facilities and expect them to be used by the community, thus increasing participation locally. Local authorities, sporting bodies and developers who fail to take into account the local needs of the community are likely to see many such facilities used no more frequently than the old ones were.

There is some evidence to show that the success of a national team can encourage greater participation, however, this is far from equivocal and the impact may only be small and short term. Role models from elite sports may inspire and discourage in equal parts participation at grassroots level. Reinforcing the positive effects through local role models is likely to be more effective.

Increased participation in sport is only likely to follow from mega-events, such as the Olympic and Paralympics, if an integrated legacy strategy is developed with increased participation as one of the goals. This strategy should include community and education programmes, opportunities for coaching, and well-planned, accessible facilities which serve an existing need.

6. Recommendations

6.1 Maximising legacy

A sustainable and meaningful legacy for London 2012 will best be achieved by closely aligning Games' projects with the needs of local communities. Analysis of the evidence across the three areas has led to the identification of the following criteria for achieving a sustainable legacy:

Legacy planning

- *Recognise the need for pro-activity* – don't make assumptions about the impact of the Games but set out how it can be achieved;
- *Put a plan in place for after the Games* – look at ways that momentum can be maintained and any negative impacts off-set;

Broad involvement

- *Build a bridge between Olympic and Paralympic ideals and communities through locally based role models and existing networks* – to avoid the Games and the athletes being seen as too remote;
- *Promote inclusivity* – through consultation and representation of community groups in the planning process;
- *Ensure facilities and events are accessible to all* – in terms of location, set up and ethos;
- *Set challenging project goals to involve hard to reach audiences* – to broaden participation in sport, the community and sustainable behaviours beyond existing converts;

Nature of attitudinal and behavioural change

- *Avoid showpiece initiatives* – there must be a clear and obvious link to people's daily lives;
- *Use the energy and unique circumstances of the Games to address existing barriers* – for instance, ensure the volunteering programme addresses skill shortages;
- *Promote lasting and tangible benefits to getting involved* – this will help sustain behaviour change beyond the excitement of the two weeks of the Games;
- *Use the Games to promote new behaviours and activities* – that challenge existing preconceptions about sustainability, sport and community involvement and attract new converts.

These criteria very much reflect the three project planning criteria recommended in *After the Gold Rush* (Vigor 2004) for achieving a sustainable legacy. These are:

- Embed projects within existing mainstream programmes and policy areas that start well before 2012 and continue well after;
- Use the Olympic and Paralympics to mobilise people, interest and resources (in mainstream programmes and policy areas);
- Invest in community capacity and ownership so they help shape change rather than it happening to them.

In summary, London 2012 has set itself challenging and commendable goals to influence attitudes and behaviour. In many ways it will be trying to achieve change that no other Olympic and Paralympic Games have delivered. This can only be done through an in-depth understanding of the sectors and audiences it aims to influence and by drawing on best and innovative practice in these areas.

6.2 Measuring legacy

6.2.1 Recommended approaches

There is no single approach to measuring legacy of the Games, rather a range of approaches are needed to gather the required range of measures. These measures will vary depending on the different aspects of legacy which are to be assessed.

However, there are some key principles which can be applied to ensure that the economic, social and sporting impact of the Games can be judged. These principles are adapted from Brown and Massey (2001) and supported by the evidence of the EdComs review;

Research should be;

- Contextualised: Take into account background trends, not just looking at the baseline and post-event data,
- Longitudinal: studying cohorts of people of a number of years
- Combine qualitative and quantitative methods: to help to understand impact as well as to measure.

6.2.2 Recommended measures

Similarly, the data collected must be varied, it should include hard and soft measures, explore impact and behaviour, not just perceptions, attitudes and intentions. Crucially, it must be tailored to the specific impact.

Table 5 summarises the recommended measures for each impact theme based on our review of the literature.

Table 5: Recommended measures

Number	Theme	Indicator description	Used by/recommended by	Likely data sources
1	Economic sustainability	Macro-economic impact (change in GDP, £-million)	Price Waterhouse Coopers 2005	
2		New business creation (average change in number of firms)	Experian 2006	
3		Employment and unemployment before, during and after the Games		
4		Number of local people recruited to Olympic and Paralympic related jobs	Experian 2006	
5		The sustainable and fair-trade sourcing of: building materials, sports equipment, tourist souvenirs and catering products	London East Research Institute 2007(London East Research Institute 2007)	
6		Cost of living for resident of the Olympic boroughs		National price indexes
7	Social sustainability	Position of Olympic boroughs and Super Output Areas (SOAs) on the Index of Multiple Deprivation including measures on income, education and health	Price Waterhouse Coopers 2005	Index of Multiple Deprivation
8		Life expectancy (as a proxy for deprivation)	London East Research Institute 2007	

9	Social sustainability contd.	Wellbeing including self-reported life satisfaction	DEFRA 2007	
10		Social capital/levels of trust in the community		Use Walker et al 2000 to help devise survey questionnaires
11		Balance of positive versus negative press coverage	Garcia 2004	
12		Public perception of the Olympic and Paralympic legacy	Ipsos MORI 2003	
13	Social sustainability/inspiring young people	Volunteering rates including Olympic and non-Olympic volunteering. This indicator should incorporate measures for inclusion of volunteers from 'hard to reach' groups and young people	London East Research Institute 2007	
14	Social sustainability/sport participation	Engagement with Olympic specific sports measured by reported enquiries to national sport organising bodies/associations	London East Research Institute 2007 Brown and Massey, 2001	
15		Memberships in local authority and private sports clubs/fitness/leisure centres (by age/ gender / ethnicity)	London East Research Institute 2007 Brown and Massey, 2001	
16		Attendances at local authority and private sports clubs/fitness /leisure centres (by age / gender /ethnicity)	London East Research Institute 2007 Brown and Massey, 2001	

17	Social sustainability/sport	Square footage dedicated to sports activity – indoor and outdoor – London /East London	London East Research Institute 2007	
18	Participation contd.	Public attitudes to disability / disabled sport	London East Research Institute 2007	
19	Environmental sustainability	The clean-up and return of waste land to social and economic use: including the planned and sustainable future use of competition facilities.	London East Research Institute 2007	
20		The recycling of water and waste materials, during the building of the facilities; during the Games; and thereafter.	London East Research Institute 2007	
21		Estimated carbon footprint of the event: this indicator should indicate which impacts have been offset	BRASS 2006	
22		Carbon footprint of those living in and around the Olympic Park including any behaviour changes over time		Carbon calculator software such as www.carbonfootprint.com

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8. Appendix

8.1 The scoping process

This section outlines the process that was followed for the scoping research exercise:

Searches and enquiries with relevant organisations

Research was sourced from the websites of a number of organisations ranging from central government departments and agencies, to Olympics Committees, through to university research departments. We found the following organisations particularly useful:

Central Governmental:

- BERR
- DCLG
- DCMS
- DCSF
- DEFRA

NGOs:

- V

Olympics Committees:

- LOCOG
- IOC

Local Government:

- Manchester City Council
- Newham Council

International Organisations:

- Centre for Olympic Studies, Australia

Government Agencies:

- COI
- Greater London Authority
- London Development Agency
- National Audit Office
- Sport England
- SSDA
- Visit Britain
- Visit London
- UK Sport

Universities:

- Loughborough University
- University of East London

Think Tanks:

- Demos
- IPPR

Research Organisations:

- BMRB
- Henley Centre Headlight Vision
- ICM Research
- Institute for Volunteering Research
- Ipsos MORI
- Opinion Leader Research
- TNS

Other

- London Legacy 2020
- London Chamber of Commerce and Industry

Searches of journal articles, books and conference proceedings

A search of three databases in order to locate relevant academic research conducted in the UK and internationally was undertaken:

Commercial specialist providers:

- Ingentaconnect
- Infotrieve
- Highbeam

Directly contacting named contacts in key organisations

The identification of key people to speak to in organisations was done in one of three ways:

1. DCMS provided us with contact information for people within Government with an expertise in this area.
2. Uncovering information on organisations' websites.
3. Using EdComs' networks to provide details of key information gatekeepers.