

London 2012: A Platform for a Successful Behaviour Change Programme?



A Bursary Paper for the UK Transport Planning Society

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December 2012

Context: London 2012

This summer, the Games of the XXX Olympiad were held in London, an event described by the Olympic Delivery Authority (ODA) as “a country’s largest peacetime logistical operation”¹. Clearly, an event of such magnitude presented both London and the UK with a huge transport challenge.

“The scope of transport operations for the London 2012 Olympic Games was the most demand the nation’s transport network has ever had to meet- 34 venues, 26 sports, 10,500 athlete, 8.8 million spectators and 22,000 media; more than a million additional journeys on the busiest day”².

This was only exacerbated in a city plagued by severe road congestion. Further, an Olympic and Paralympic Route Network was put in place to accommodate (at times, exclusively) athletes and officials. Additional road closures for road events and access restrictions around venues existed. Combined, a significant reduction in road availability reduced the attraction or eliminated the option to drive. As such, London 2012 sought to be the first ‘Public Transport Games’. Spectators received; along with their ticket, a daily Travelcard-encouraging them to attend their respective event and travel around the city using a form of public transport.

In the Transport Plan³ for the London 2012 Olympic and Paralympic Games, three key strategies included;

*-keep London and the UK moving during the Games;
-leave a lasting, positive legacy; and
-achieve maximum value for money, building new infrastructure only where essential.*

Achieving value for money was a pivotal facet underpinning the programme, ensuring maximum use of existing transport infrastructure where at all achievable. However, demand forecasting implied that at certain locations at certain times of the day, demand would exceed capacity on the public transport and road networks. Whilst additional capacity in the transport network could alleviate some of this additional stress, its ability to do so was finite. Concern centred on London’s transport network, and its ability to cope.

“We remain concerned about the likely unprecedented demand for access to roads and the public transport network during the Games”.

London Councils⁴

¹ Olympic Delivery Authority. 2011. Transport Plan for the London 2012 Olympic and Paralympic Games (p.1).

² ODA. 2012. Delivering Transport for the London 2012 Games (p.3).

³ Ibid

⁴ ODA. 2012. Delivering Transport for the London 2012 Games (p.107).

Introduction

So how did London cope with such additional demand on the public transport network, given the congestion it already faces?

Work to develop a Travel Demand Management (TDM) programme was started in 2008 and its name implies that it focused on travel demand rather than transport supply⁵. Thus, it promoted short-term travel behaviour change for regular transport users over the Games period (notably through one of four R's; reduce, re-time, re-mode or re-route) by enabling informed travel choices. A reduction in background demand would ultimately free up space on the transport network for any additional Games-related journeys.

The scale and ambition of the campaign was significant, with TDM's key objective being to deliver on average reduction of 30% in background demand at certain times and at particular transport hotspots over the Games period. This target was exceeded, with the level of behaviour change reaching 35% on weekdays during the Olympics and 31% during the Paralympics. Particularly high values were obtained at weekends; twice exceeding 40%, suggesting that Londoners more easily rescheduled or changed their non-essential journeys⁶. Despite record numbers of passengers being carried, TDM helped to disperse journeys across the morning and evening peaks- this even created the impression that the network was less busy than usual⁷.

Moreover, longstanding benefits of the TDM programme include; cycle stand installation at workplaces, improved shower facilities, increased cycling confidence, increased awareness of walking opportunities (aided by maps such as 'Walk from Waterloo'), in addition to improved working from home and teleconferencing facilities. Underpinning all potential changes is a tenet of behaviour change- changing one's perceptions and routine to try alternative travel options.

Whilst various stances could be adopted, this essay will present my opinion of the reasoning behind TDM's success, by way of three arguments;

- *a strong political and legislative platform existed;*
- *an impressive marketing and communications campaign was in place; and*
- *the public were motivated... the Games were coming.*

⁵ Ferguson, E. 2000. *Travel Demand Management and Public Policy*. London: Ashgate (p.8).

⁶ TDM Monitoring Research.

⁷ ODA. 2012. *Delivering Transport for the London 2012 Games* (p.140).

The Travel Demand Management Programme

The programme; funded by the Olympic Delivery Authority (ODA), was supported by a plethora of transport authorities and operators. These included; Transport for London (TfL), London Organising Committee of the Olympic and Paralympic Games (LOCOG), Network Rail (NR), Highways Agency (HA) and Train Operating Companies (TOCs).

TDM's key intentions included⁸;

- raising awareness of the transport impact of the Games and the transport choices available;*
- providing information on the location of the busiest parts of the transport network;*
- providing travel advice for regular users of the transport network, businesses and spectators; and*
- encouraging people to pre-plan their journeys.*

The Programme provided consistent information and advice to three key audiences in order to enable optimal travel patterns; businesses, spectators and regular travellers. Examples of TDM initiatives and their respective target audiences included⁹:

Businesses

- Site specific advice for 550 large businesses in hotspot locations; including Canary Wharf and City of London*
- Toolkits (in hard copies and on the GAOTG website) including information, advice, case studies and video seminars*
- Workshops (2979 businesses attended between Summer 2011 and June 2012)*
- Advertising (including City AM and Evening Standard)*
- Mail drop and door knocking*
- Conferences and Third Party events (reaching over 20,000 businesses)*
- Daily bulletins during Gametime*

⁸ Olympic Delivery Authority. 2011. Transport Plan for the London 2012 Olympic and Paralympic Games (p.223).

⁹ ODA. 2012. Delivering Transport for the London 2012 Games (pp.105-113).

Spectators

- London 2012 website, helping spectators to plan their journeys
- Spectator Journey Planner to include routing strategies
- Twitter feed and various Apps for mobile phones
- Planned and real-time information available on screens on the transport network

Regular Travelers

- GAOTG website including visualiser tools outlining the anticipated level of demand over space and time

GAOTG marketing campaign including radio and poster adverts

- Emails to TfL's customers
- Walking maps given out at mainline stations

The timeframe for the project was extensive and the timeline below outlines the development of the programme.

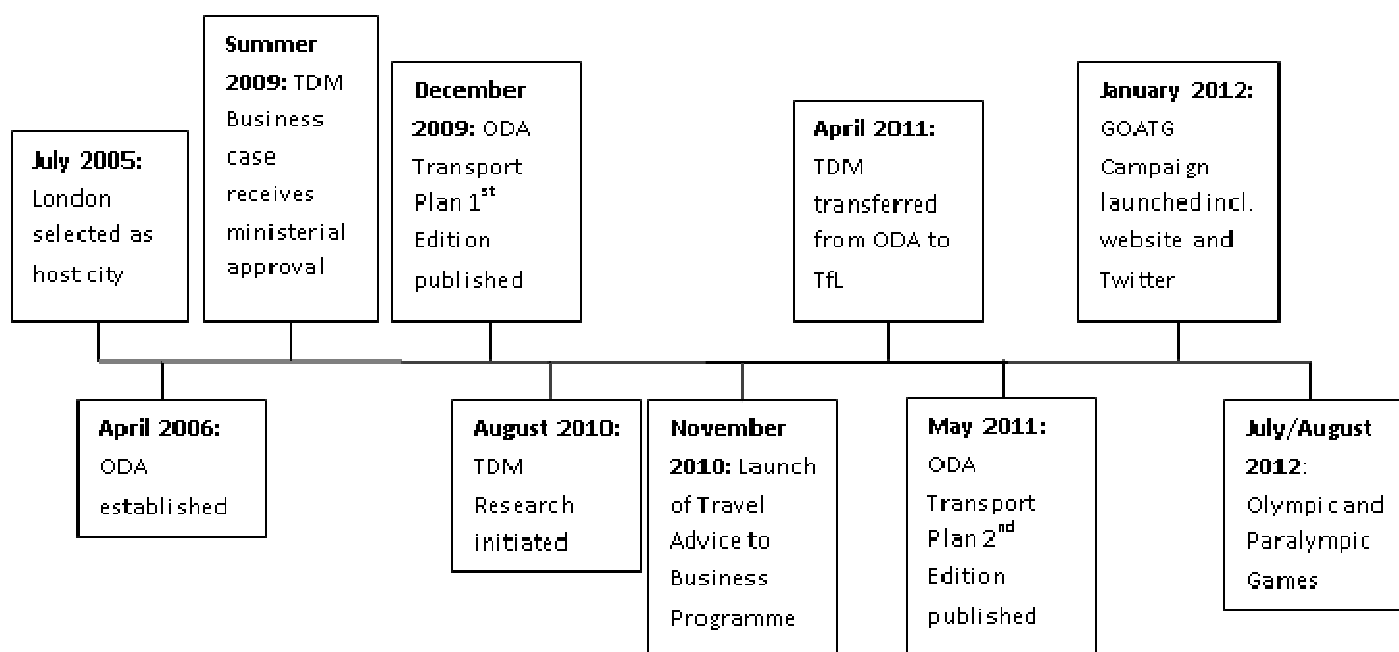


Figure 1: A timeline to outline the development of the TDM programme.

LOCOG considered such a programme fundamental in staging a successful Games¹⁰, particularly in light of scenes at past Olympic and Paralympic Games (see Figures 2, 3 and 4). The programme drew on lessons learned from previous TDM programmes in Games such

¹⁰ Ibid.

as Sydney, Salt Lake City and Vancouver. The programme was national but this essay will focus specifically on its efforts in London.



Figure 2: A scene at the Torch Relay for the Beijing Olympics¹¹.



Figure 3: Vancouver Winter Games- Canada beating USA at Ice Hockey¹².

¹¹ Get Ahead of the Games Campaign.

¹² Get Ahead of the Games Campaign.



Figure 4: An 8 hour queue for the public transport system in Atlanta¹³.

Underpinning TDM's interventions, a focus was placed on offering advice and promoting behaviour change in order to encourage smarter travel in the city. It centred on informing people about the potential disruption they would experience, in order to help them make a choice. Such an approach; termed by Jones and Sloman¹⁴ to be a 'soft' measure, aims to influence via information and persuasion as opposed to physical improvements¹⁵. Examples include, "alternative hours of travel include staggered shifts, flexible hours, compressed weeks, and telecommunications substitution for travel"¹⁶. Figure 5 outlines a ladder of interventions. With the above 'soft' measures approach, combined with the road restrictions in place, the programme drew across a number of these levels.

¹³ Ibid.

¹⁴ Jones, P. M. and Sloman, L. 2003. Encouraging Behavioural Change Through Marketing and Management: What Can Be Achieved? 10th International Conference on Travel Behaviour Research, Lucerne, Switzerland.

¹⁵ Gärling, T., Eek, D., Loukopoulos, P., Fujii, S., Johnasson-Stenman, O., Kitamura, R., Pendyala, R., and Vilhelmson, B. 2002. 'A Conceptual Analysis of the Impact of Travel Demand Management on Private Car Use'. *Transport Policy*, 9, 1, pp. 59-70 (p.59).

¹⁶ Ferguson, E. 2000. *Travel Demand Management and Public Policy*. London: Ashgate (p.84).

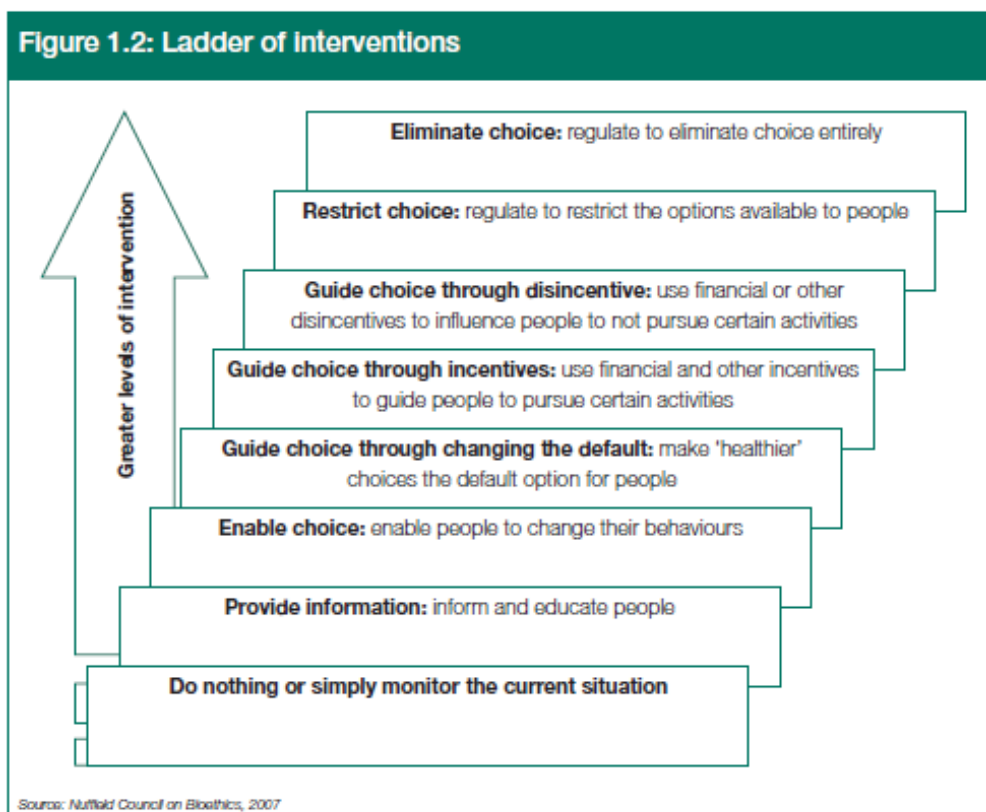


Figure 5: A ladder of interventions for transport initiatives¹⁷.

TDM's ambitious objective was to generate a 30% reduction in background demand at certain times and transport hotspots over the Games period; through the four R's- reduce, re-time, re-mode (notably walk or cycle) or to re-route. A typical TDM programme would centre on a shift from road use to public transport use, and in general terms, Cairns et al. (2008)¹⁸ found that soft measures alone can reduce car traffic by 4-5% nationally. When complemented by hard transport policy measures, this increased to 10-15%, or 15-20% in favourable conditions¹⁹. Alternatively, London 2012's TDM programme also focused on managing public transport use, and ultimately encouraging people to change their travel behaviour in order to achieve most optimum use of the whole travel network in London. Impressively, TDM's objective of 30% change was exceeded, suggesting that the Games environment offered a unique platform for a more successful TDM initiative than customary. So what were the contributors to its success?

¹⁷ DfT. 2011. Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen (p.13).

¹⁸ Cairns et al., 2008 in Gärling, T., Eek, D., Loukopoulos, P., Fujii, S., Johnasson-Stenman, O., Kitamura, R., Pendyala, R., and Vilhelmson, B. 2002. 'A Conceptual Analysis of the Impact of Travel Demand Management on Private Car Use'. *Transport Policy*, 9, 1, pp. 59-70 (p.6).

¹⁹ Jones, P. M. and Sloman, L. 2003. 'Encouraging Behavioural Change through Marketing and Management: What Can Be Achieved'. 10th International Conference on Travel Behaviour Research, Lucerne, Switzerland.

Political and Legislative Platform

“Transport networks will be busier than usual, which is why we’re urging businesses to plan ahead now to change the way and times they travel, and have their goods delivered, during the summer of 2012. But working together, I’m confident we’ll keep London moving and deliver a fantastic Games of which the city and nation can be proud”.

Peter Hendy, Commissioner, Transport for London²⁰

The TDM programme was launched on a unique legislative and political platform, with backing from the ‘Transport Plan for the London 2012 Olympic and Paralympic Games’ and major authorities, including TfL and the GLA. Boris Johnson even acted a voice, with his recordings being disseminated to commuters at mainline stations, and on London’s buses and trains in the lead up to and during the Games.

In essence, the intention to hold a successful Games, and the associated requirements of the transport network to do so, provided an ideal setting to effectively push through Travel Demand Management techniques. Further, it presented “an excellent opportunity to build on the ongoing work by TfL, local authorities and other groups to further develop walking and cycling and to leave a legacy benefit”²¹. Over £11 million was invested in improved walking and cycling facilities, including paths linking the Olympic Park; such as the Greenway, and other venues²². Moreover, the London 2012 walking and cycling plans were complemented with soft measures, to include a programme of awareness-raising initiatives promoted under the Active Travel Programme²³. The timing of the Olympics also fell nicely within the recently announced Local Sustainable Transport Fund, which, with a budget of £600m is the largest smarter travel investment for a decade. Conveniently, increased cycling and walking in London was firmly on the political agenda.

²⁰ Olympic Delivery Authority. 2011. Transport Big Build- Complete (p.3).

²¹ Olympic Delivery Authority. 2009. Transport Plan for the London 2012 Olympic and Paralympic Games: Second Edition Consultation Draft (p.76).

²² Olympic Delivery Authority. 2010. Transport Update, Issue 7: Sustainable Transport (p.7).

²³ Olympic Delivery Authority. 2009. Transport Plan for the London 2012 Olympic and Paralympic Games: Second Edition Consultation Draft (p.77).

Communicating the Message

TDM was innovative with its marketing and communications campaign- Get Ahead of the Games (GAOTG) - a campaign which relayed TDM's objective; that is, to raise awareness of the busiest hotspots, and to offer alternative travel advice. A widespread, high-profile combination of social media, advertising and interactive tools led to a highly successful dissemination of information to the public. This continued during Gamestime, when both planned and reactive messaging was distributed to all audiences²⁴ - offering advice of alternative travel options in the event of disruption, or congestion.



Figure 6: An iconic poster, central to the GAOTG campaign²⁵.

²⁴ Olympic Delivery Authority. 2011. Transport Plan for the London 2012 Olympic and Paralympic Games (p.224).

²⁵ Get Ahead of the Games Campaign.

An important element of the campaign centred on advocating walking in London, with nearly a quarter (23%) of Londoners receiving a copy of TfL’s ‘Why not walk it?’ maps²⁶. Such collateral; handed out at mainline stations, encouraged commuters to walk the final stage of their journey, rather than interchanging from a rail service onto further public transport. It is these short-distance trips which have most opportunity for sustainable travel choices to be made, especially given that “around two out of every three trips we make are less than 5 miles in length”²⁷. The scheme helped to engrave new attitudes into Londoners and enable them to appreciate that; in fact, a wide area could be covered on foot within a short journey time.

Overall; at the time of the Olympics, more than 71% of Londoners had heard of the GAOTG campaign²⁸, demonstrating wide reach. Further, just over a third (34%) of Londoners had visited the www.GetAheadoftheGames.com website and, three quarters of Londoners who had visited the GAOTG website claimed it was helpful in their decision making²⁹. Further, Figure 7 (left hand side chart) suggests that those aware of GAOTG campaign (‘Ad-aware’) had greater awareness of personal disruption than the population as a whole. As expected, given the disproportionate concentration of effort in the city, London residents were much more aware of personal disruption than those outside³⁰.

In terms of the type of journey being made (right hand side chart), awareness of personal disruption was consistently highest among hotspot users, reflecting greater exposure to the ‘on-network’ advertising and inherently as a user a greater appreciation of the issue³¹.

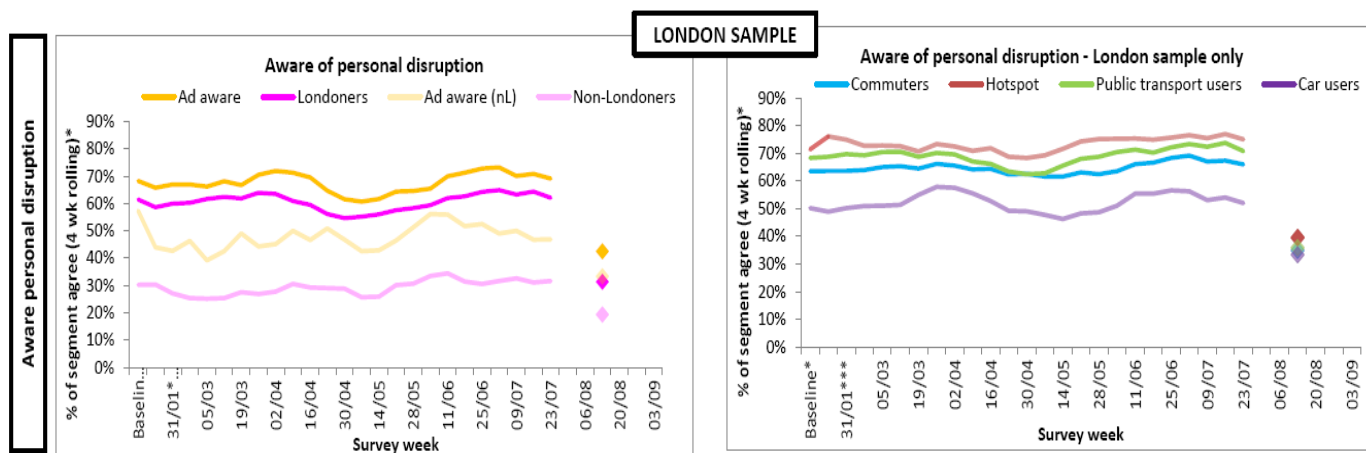


Figure 7: The level of awareness of personal disruption – the proportion of people who said that their travel at Games-time would be severely disrupted³².

²⁶ TDM Monitoring Research.

²⁷ DfT. 2011. Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen (p.5).

²⁸ TDM Monitoring Research.

²⁹ Ibid.

³⁰ Ibid.

³¹ Ibid.

³² Ibid.

Further, GAOTG advertising reached large proportions of the populations in London and outside, and this reach increased over time (see Figure 8). The level of ad-awareness in London grew steadily throughout the GAOTG campaign from 23% in January to 62% in July 2012. The growth in the level of ad-awareness among car users significantly lagged behind hotspot users, public transport users and commuters.

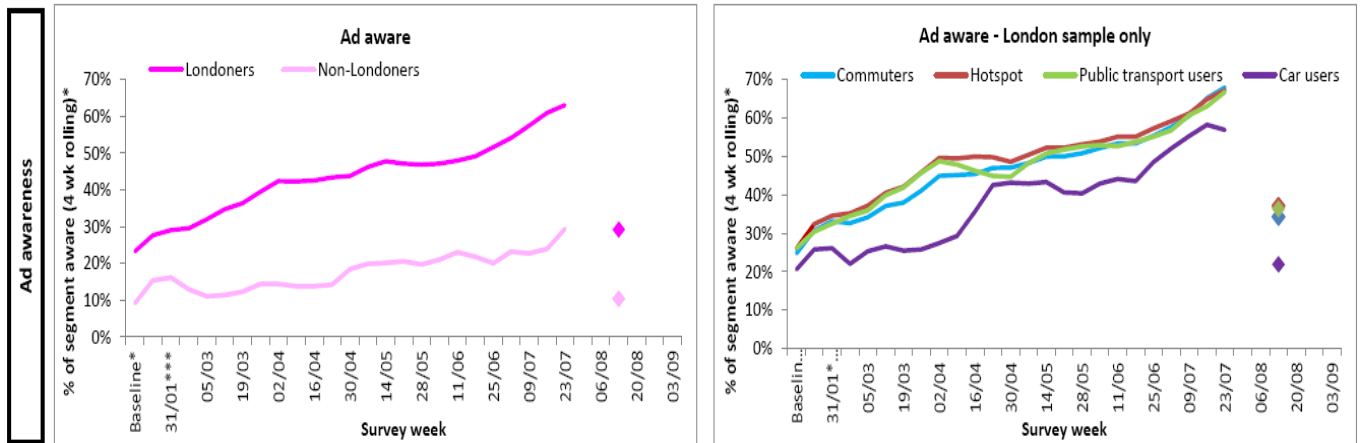


Figure 8: The percentage of GAOTG aware people³³.

Thus, a high profile, impressive marketing and communications campaign reached a large number of Londoners in an effective manner. Ferguson³⁴ poses an interesting question, “should TDM marketing be targeted at individuals, households or firms? The correct answer is all of the above”. In the case of London 2012, all three were affected, and as such, all three channels were utilised to bring about the change required.

³³ Ibid

³⁴ Ferguson, E. 2000. *Travel Demand Management and Public Policy*. London: Ashgate (p.114).

Figure 9 acts as further evidence to prove that an increase in awareness, planning and action existed in the build-up to the Games. It is clear that; given increasing levels of information over the duration of the GAOTG campaign, an increasingly significant proportion of people were both aware of the changes likely and were planning to act on these changes. Whilst the proportion of those planning to act is lower than the other two categories, it is important to note that the data represents just Games ticket purchasers and data for all audience types would be needed to fully draw conclusions. Encouragingly, a prominent increase in those ‘likely to follow advice’ does mirror the roll out of the GAOTG campaign.

- *Aware – the proportion of Spectators in Great Britain who strongly agreed that ‘The venue town/ cities will be far busier during the Games’.*
- *Plan – the proportion of Spectators in Great Britain who had planned or decided how to make the entire journey from home to venue.*
- *Act – the proportion of Spectators in Great Britain who were very likely to ‘Follow advice given by London 2012’.*

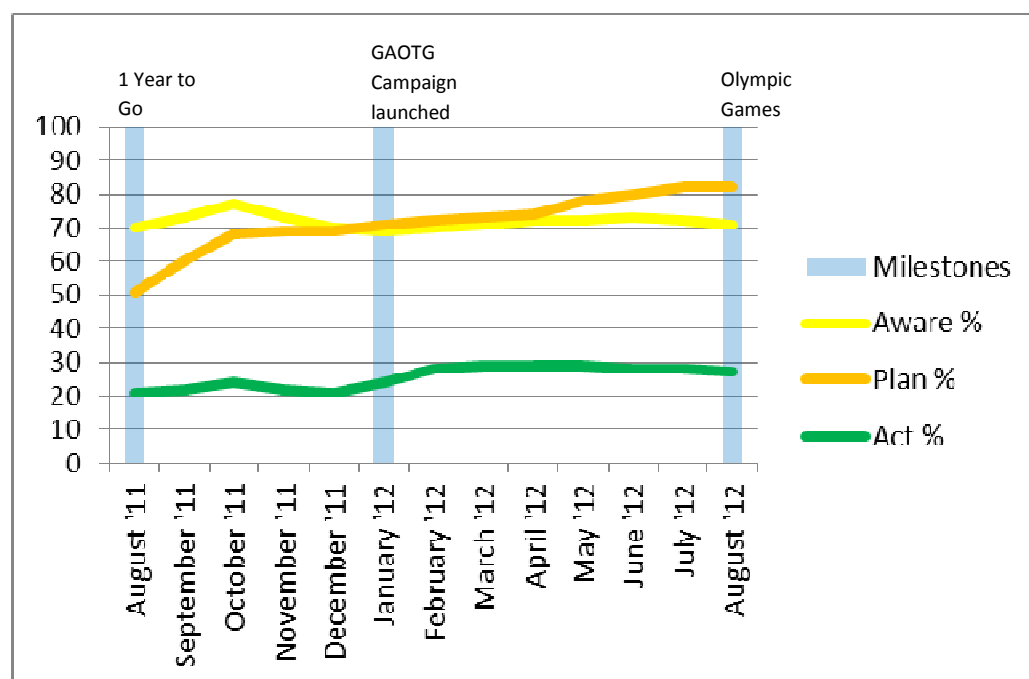


Figure 9: Level of awareness, planning and action relative to TDM interventions for Games ticket purchasers³⁵.

DfT, TfL and transport operators are eager to draw lessons from the success of the Get Ahead of the Games campaign, in order to see how better communication can help London’s available transport network be used more efficiently³⁶.

³⁵ Ibid

³⁶ ODA. 2012. Delivering Transport for the London 2012 Games (p.140).

...the Games were Coming

As part of the TDM programme, the public was exposed to a vast amount of information about the anticipated delays to their journey at varying times and dates across London. This included London's road network- on which an Olympic/Paralympic Route Network was to be instated to ensure athletes and officials arrived at events on time. This significant reduction in availability acted as a physical capacity restraint on the road network. Combined with considerable queues forecasted for the public transport network (see Figures 10 and 11), the picture looked bleak, highlighting the potential widespread impact on individuals and businesses. As such, the common expectation was that the transport network would not cope with the induced demand.

Beneficially, the above acted as a catalyst to make Londoners plan; "knowledge and motivation go hand in hand"³⁷. Thus, the city was particularly enthused to consider their travel options; given that alternative travel was less an 'option' and more a necessity to keep on moving. This situation forced the city's residents, commuters and businesses to overcome their perceptions and potential issues of vulnerability in a period when others were in the same position, trying alternatives for the first time.

A report by Painting the Town Green³⁸ presents interesting ideas, claiming that benefits to behaviour change need to be evident at not just a society level, but also at a personal level. People need to see others changing alongside themselves to not only render their efforts more effective, but to ensure that they are not at a perceived disadvantage to their neighbour. Thus, a success of the TDM programme lay in the fact that everyone was exposed to the same source of information, and were able to visualise self-improvements.

³⁷ Gärling, T., Eek, D., Loukopoulos, P., Fujii, S., Johnasson-Stenman, O., Kitamura, R., Pendyala, R., and Vilhelmson, B. 2002. 'A Conceptual Analysis of the Impact of Travel Demand Management on Private Car Use'. *Transport Policy*, 9, 1, pp. 59-70 (p.68).

³⁸ Hounsham, S- First Group, UK. 2006. *Painting the Town Green: How to Persuade People to be Environmentally Friendly* (p.4).

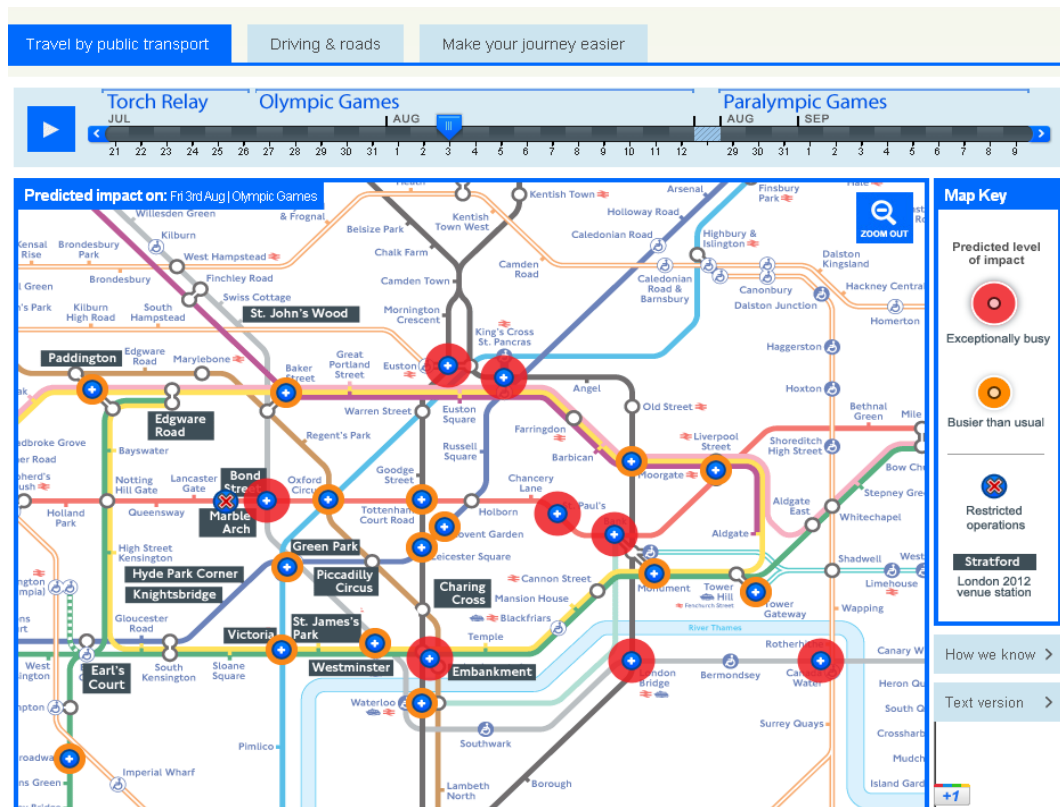


Figure 10: A visualiser tool on the GAOTG website, identifying anticipated transport hotspots³⁹.



Figure 11: Demand forecasting output. Red= expected delays of 30 minutes or more; orange=15-30 minutes; yellow=up to 15 minutes to board a service⁴⁰.

³⁹ Get Ahead of the Games Campaign.

Combined, the reduction in road space and the anticipated congestion on the public transport network positively encouraged people to act. As noted by the DfT⁴¹, it is this combination of both hard and soft measures which is most effective in suppressing demand.

“For greatest effect, a smarter choices programme should be combined with ‘hard’ traffic restraint measures. Without this, the road space freed up by the smarter choices programme could simply attract more car use by other people, so the net effect would be much less”.

⁴⁰ Get Ahead of the Games Campaign.

⁴¹ DfT. 2005. Making Smarter Choices Work (p.3).

Conclusions

Clearly, Travel Demand Management schemes can prove highly effective in reducing transport demand and can act as good value for money.

“By providing people with options to choose sustainable modes for everyday, local transport choices, we can help boost economic growth by facilitating access to local jobs. Sustainable Transport can also influence the quality of our lives, the air we breathe, how healthy and fit we are, the money in our pockets and how long we spend in traffic queues – as well as the pleasantness of our environment and public spaces”

Norman Baker MP, Parliamentary Under Secretary of State for Transport⁴²

Cairns et al. (2008)⁴³ found that soft measures alone can reduce car traffic by 4-5% nationally. When complemented by hard transport policy measures, this increased to 10-15%, or 15-20% in favourable conditions⁴⁴. The TDM Programme rolled out for the Games period undoubtedly exceeded these figures, with figures surpassing 30% at times. How was this level of change achieved? This essay has argued that London 2012 placed people in a unique environment in which change in travel behaviour was imperative in order to ‘keep on running’. Combined with a strong political and legislative platform, in addition to an impressive marketing and communications campaign, the scene was set for an innovative Travel Demand Management programme.

So what are the benefits to London for continued TDM?

London’s projected longer-term growth in employment and population will result in an increase in overall travel – “increasing from 24 million to 28 million trips per day by 2023”⁴⁵. With such a projected increase in travel across the city, we need to find a way to accommodate it all. Legacy is thus a very important aspect of the Games and encouragingly, a number of legacy benefits will be left by TDM. These include; enhanced communication channels, cycle stand installation at workplaces, improved shower facilities, increased cycling confidence and awareness of walking opportunities (aided by maps such as ‘Walk from Waterloo’), in addition to improved working from home and teleconferencing facilities. The innovative use of social media to relay not just real-time information, but advice will also be sustained, as will the capacity to incorporate routing strategies into journey planning tools.

⁴² GovToday. 2012. Sustainable Transport: Enabling Sustainable Choices Conference and Exhibition

⁴³ Cairns et al., 2008 in Gärling, T., Eek, D., Loukopoulos, P., Fujii, S., Johnasson-Stenman, O., Kitamura, R., Pendyala, R., and Vilhelmson, B. 2002. ‘A Conceptual Analysis of the Impact of Travel Demand Management on Private Car Use’. *Transport Policy*, 9, 1, pp. 59-70 (p.6).

⁴⁴ Jones, P. M. and Sloman, L. 2003. ‘Encouraging Behavioural Change through Marketing and Management: What Can Be Achieved’. 10th International Conference on Travel Behaviour Research, Lucerne, Switzerland.

⁴⁵ Greater London Authority. 2011. The London Plan (p.145).

Most importantly, it has demonstrated that people's travel behavior is flexible and can be influenced at a large scale in order to make more efficient use of London's transport network.

*"We talk in terms of carrots and sticks as though the public literally were donkeys. Treating them as dumb animals that can be pushed and pulled into doing the right thing is not the right approach. People need to be taken on a shared journey, not exhorted to do things. It must be a journey based on dialogue between active partners about a shared problem"*⁴⁶.

In achieving such change, the Olympic and Paralympic Games has given heightened impetus to utilise 'soft measures' in the transport arena for specific one-off events or tube line disruptions. Future focus of Travel Demand Management schemes should centre on major events planned engineering works or hotspot areas where congestion occurs or alternatively at times of change in the target group's circumstances⁴⁷. People seem more enthused to make changes for a given reason over a defined period of time and such interventions would enable the transport system to be used more efficiently.

On top of this, it is essential that people perceive the changes to be satisfying in order to continue to change their behaviour⁴⁸. Such a concept must be pivotal to the success of the travel demand levels over the Paralympic Games. Whilst a small proportion of background demand resorted back to their original plans, a sufficient number did keep to their original plans.

In sum, this essay has argued that the TDM programme applied to London 2012 was highly successful. London 2012 has set a new standard, as envisaged in the Transport Plan. That is, to encourage sustainable transport for major events⁴⁹. Namely, three primary reasons have been attributed to this success; political and legislative backing, motivation and an innovative marketing and communications campaign. Above all...

*"The story is that, with a different approach and a bit more imagination, we really can achieve change"*⁵⁰.

⁴⁶ Hounsham, S- First Group, UK. 2006. 'Painting the Town Green: How to Persuade People to be Environmentally Friendly' (p.7).

⁴⁷ NCRC. 2008. Innovative Programmes for Travel Demand Management [Online]. Available at: <http://www.energychange.ceu.hu/q/pdf/IP4TDM.pdf> (p.14).

⁴⁸ Friman et al., 2001; Friman and Gärling, 2001; Fujii, et al., 2001 in Moser, G., and Bamberg, S. 2007. 'The Effectiveness of Soft Transport Policy Measures: A Critical Assessment and Meta-analysis of Empirical Evidence'. *Journal of Environmental Psychology*, 28, 1, pp.10-26 (p.18).

⁴⁹ Olympic Delivery Authority. 2010. Transport Update, Issue 7: Sustainable Transport (p.10).

⁵⁰ Hounsham, S- First Group, UK. 2006. Painting the Town Green: How to Persuade People to be Environmentally Friendly (p.8).

Acknowledgements: I would like to thank my mentor, John Rider who was always at hand to provide help and support over the course of writing this paper. Thanks also to Katie Hall (MVA) for her proof reading efforts.