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Engaging communities in changing the environment to promote transport-related walking: Evaluation of route use in the 'Fitter for Walking' project

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ABSTRACT

Promoting walking for transport may help to increase physical activity levels. Associations between the built environment and walking for transport have been well reported. Engaging communities in making small-scale changes to local routes is one potential low-cost strategy to improve neighbourhood environments. The purpose of this study was to evaluate changes in pedestrian use of local routes following environmental changes made by communities and local authorities (LAs) in the 'Fitter for Walking' (FFW) project, to assess route users' awareness of the environmental improvements which were implemented and to make recommendations for future evaluation.

FFW targeted deprived communities in twelve LA areas in England. Coordinators worked with communities and LA partners to improve local route environments based on identified barriers to walking. Route user counts and intercept surveys were conducted in five FFW case studies at baseline, 12 months and 14–20 months after the project activities had commenced.

A wide range of environmental improvements were undertaken. After 12 months, there was a decrease in pedestrian route use overall (−19.4%) and in four case studies (range −42.1% to −10.4%). However, after 14–20 months, an increase in pedestrian route user overall (14.9%) and in all case studies (range 5.4–58.9%) was observed compared to baseline. Route users' awareness of environmental improvements made to routes varied across case studies and was very low for some of the improvements which had been made.

Engaging communities in making small-scale environmental improvements to key routes in local neighbourhoods may be an effective, low-cost strategy for increasing walking for transport. Increasing the number of people walking on newly improved routes may take a long time and require additional promotional initiatives. Evaluating these types of initiatives is challenging. These factors should be considered by health and transport professionals developing initiatives and by researchers interested in measuring behaviour change.

1. Introduction

The health benefits of participating in regular physical activity have been well reported (Department of Health, 2011; Physical Activity Guidelines Advisory Committee, 2008; US Department of Health and Human Services, 1996). Despite this, 33% of males and 45% of females in England do not meet current physical activity recommendations (Department of Health, 2011; Health and Social Care Information Centre, 2012) resulting in increasing public health, economic and social burden from diseases associated with low levels of physical activity (Allender et al., 2007; Scarborough et al., 2011; Lee et al., 2012). Strategies are therefore urgently needed which effectively increase physical activity levels to improve health and reduce this burden. Walking has been described as near perfect exercise (Morris and Hardman, 1997). It is free, acceptable to most people, requires no special equipment, can be incorporated into everyday life and has been

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shown to have health benefits (Department of Health, 2011; Hamer and Chida, 2008; Kelly et al., 2014; Lee et al., 2010; Murtagh and Nichols, 2015). When walking is used as a mode of transport, it also has the potential to reduce transport costs, help save money and to improve the environment by reducing traffic, which in turn improves road safety and reduces congestion and pollution (Department of Health, 2011) as well as to improve the wider determinants of health inequalities (Marmot, 2010). Therefore, one strategy that has potential to increase physical activity is to encourage people to walk for short trips within their neighbourhood to local destinations.

The physical environment is identified in ecological models as an important influence on physical activity (Sallis et al., 1998). There is now substantial evidence to support the associations of walking for transport with different attributes of the neighbourhood built environment (Adams et al., 2013; Bauman and Bull, 2007; Owen et al., 2004; Saelens et al., 2003; Saelens and Handy, 2008) and potential health, social, environmental and economic co-benefits of activity-friendly environments have been identified (Sallis et al., 2015). Recommendations have been made for changes to the built and natural environment to ensure local services and facilities are easily accessible on foot (as well as by bicycle and other modes of transport requiring physical activity) and also to support walking by offering convenient, safe and attractive access to workplaces, homes, schools and other public facilities (National Institute for Health and Care Excellence, 2008a). However, a number of barriers exist to making large-scale community-wide changes to the built and natural environment to support walking. These include the high levels of investment which are needed and the relatively slow time it takes to change the urban landscape (Heath et al., 2006).

In the face of cuts in public funding, low-cost approaches to improving the local environment to support walking need to be considered. One such approach is to target specific geographic areas, for example key local routes within a neighbourhood, and to instigate smaller scale changes to the built and natural environment which can also be made relatively quickly. Examples of these changes might include improved lighting, improvements to increase the ease and safety of road crossings, improved continuity of footpaths, traffic calming measures such as speed bumps and improved aesthetics of the route e.g. landscaping (Heath et al., 2006, 2012). Engaging local communities in the process of improving their local neighbourhood environments, including the planning, design and delivery of activities, may help to identify specific local environmental barriers and improvements needed to increase walking levels. Local residents can help by taking action themselves to implement changes to improve the local environment, or where more substantial infrastructural barriers are identified (e.g. lack of lighting and suitable crossing points), can be encouraged to work with local councils to influence improvements.

A few small-scale environmental interventions have shown the potential for increasing walking or overall physical activity (National Institute for Health and Care Excellence, 2008a; Heath et al., 2006). However, to date, these interventions have often been conducted as part of wider whole community projects (Baker et al., 2015) and the impact of changing the environment on walking and physical activity has not been specifically reported, or the interventions have been undertaken without any community involvement in the process. Only one study was identified which specifically assessed the effectiveness of using a community engagement approach to instigate these types of changes to attributes of the environment on local routes (Krieger et al., 2009). Using this approach may be important for making rapid and relevant changes to the local environment to promote walking without the need for high levels of investment. The purpose of this study is to evaluate changes in pedestrian use of local routes following environmental changes made by communities and local authorities in five case study sites in the 'Fitter for Walking' project, to assess route users' awareness of the environmental improvements which were implemented and to outline the challenges of evaluating these types of initiatives and provide recommendations for future evaluation.

1.1. The 'Fitter for Walking' project

The Fitter for Walking (FFW) project was launched in 2008 and completed in early 2012. It was supported by a £1.7 m grant from the Big Lottery Fund's Wellbeing Programme. The project was managed and delivered by Living Streets, a third sector organisation based in the UK, as part of a portfolio of projects being delivered by the Travel Actively Consortium which included leading walking, cycling and health organisations. The main aims of the FFW project were to: (1) improve the local neighbourhood walking environment; (2) increase the number of people walking on a specific route targeted for environmental improvements; and (3) encourage communities and local residents to work together to promote walking.

Twelve local authority (LA) partners from five regions of England were recruited by Living Streets to take part in the project: London (Barking & Dagenham, Redbridge); North East England (Gateshead, Sunderland, Newcastle); North West England (Blackburn with Darwen, Bolton); the West Midlands (Dudley, Sandwell, Wolverhampton); and Yorkshire (Doncaster, Rotherham). The LAs were recruited on the basis of having low levels of reported physical activity based on survey results from Active People Survey 1 (2005–2006) (Sport England, 2005–2006) and being based in an area of high deprivation. Five full-time project coordinators, one based in each region, were recruited to act as a link between the LA partner and local communities to enable environmental improvements to be made.

Project coordinators used targeted and opportunistic approaches to recruit a wide variety of community groups. The project coordinators assisted the registered groups with identifying a particular route or local area of concern to them and residents from across the wider community were consulted to identify barriers to walking on this specified route. In some projects, improvements to the local environment were identified through Living Streets' Community Street Audit methodology (Living Streets). Recommendations for action were then made to communities, LAs and partners and this informed the activities that were delivered locally during the project. Activities were delivered across three areas: (1) local authority-led infrastructural changes e.g. new street lighting, dropped curbs, removal of street furniture such as bollards or railings; (2) community-led environmental changes e.g. bulb planting, street cleaning; and (3) promotional and awareness raising activities e.g. led walks to increase awareness of a newly improved route. A detailed description of the Fitter for Walking project is provided elsewhere (Adams et al., 2012).