



Sustaining Resident Active Travel: Review & Recommendations

INTRODUCTION

People's travel habits have changed significantly since the start of the COVID-19 pandemic, to a large extent due to the requirements of social-isolation, social distancing, local and national lockdowns, and capacity limitations placed upon public transport. As a result, people are engaging more in 'active travel' than previously recorded, defined as 'walking or cycling as an alternative to motorised transport (notably cars, motorbikes/mopeds etc) for the purpose of making everyday journeys' (Public Health England, 2016:10). The benefits of active travel, to the individual and to the environment, are clear and well documented (Brook Lyndhurst, 2016; Cairns et al., 2018; Gilbert et al., 2019).

As the COVID-19 vaccine is rolled-out across the country and restrictions on social isolation and social distancing are relaxed, people's lives will begin to return to how they were pre-COVID. For many, this may include reverting back to previous patterns of travel behaviours. For example, as employees shift from home-based work to office-based work, the number of cars on the road will likely increase, particularly given the government limitations on public transport passenger capacity (International Transport Forum, 2020).

Purpose

This paper provides an overview of the research conducted on active travel, and a series of evidence-informed recommendations on how to support residents to maintain these healthier, more environmentally friendly, active travel choices.

RESEARCH AND EVIDENCE BASE

A rapid review of the literature on active travel was conducted, with consideration of research from the UK and overseas. The findings of the review are detailed below, including key influences upon individual travel choices, and interventions that have been found to effectively increase/maintain levels of active travel. The data informed a behavioural analysis that was focused on identifying and evaluating three specific components that have been shown to influence behaviour – capability, opportunity, and motivation (Michie et al., 2011).

Key influences

The research identified factors that have been shown to influence whether an individual decides to walk/cycle or take alternative transport options, such as driving or taking public transport. These factors can be broadly categorised as being hard measures or soft measures.

Hard measures refer to physical/infrastructural/logistical influences, for example:

- Appropriate infrastructure, for example street layout and development patterns
- Distances required to travel and time to do so
- Actual costs
- Safe and secure walking/cycling routes
- Availability of bicycle parking

Soft measures refer to non-physical factors that support behaviour change, for example:

- Knowledge of walking/cycling paths
- Perceptions of safety
- Perceptions of convenience
- Perceived costs
- Social and cultural norms
- Perceptions of benefits (e.g. health, environmental)
- Beliefs in own ability to walk/cycle

The literature on interventions to increase levels of walking and cycling strongly demonstrates that the most effective programmes have a complementary package of hard and soft measures (Department for Transport, 2016).

Effective interventions - Hard measures

An individual's choice to engage in active travel is influenced by a number of external/environmental conditions, including the availability, accessibility, location, and costs of alternative forms of travel. Addressing structural barriers can be expensive, however smaller scale actions can be taken that have the potential to deliver significant impacts.

The following hard measures have evidence to support their utility in increasing and/or maintaining levels of active travel.

Walking/cycling spaces

- Creating temporary walking and cycling spaces on roads to make walking and cycling safer whilst enabling compliance with social distancing (Brook Lyndhurst, 2016; Cairns et al., 2018).
- Introducing walking and cycling routes, particularly where they improve cross-city travel (Cairns et al., 2018). A survey of cyclists crossing Greater Manchester found that 25% reported that improved cycle routes had influenced their decision to cycle.
- Removing through motor traffic from residential streets, to increase the safety of people walking in the street, which would also increase safety for cyclists.
- Encouraging the lowering and enforcing of speed limits to protect those walking and cycling.
- Suspending/automating pedestrian and cyclist pushbuttons at signaled crossings.
- Ensuring that any walking/cycling paths are well maintained.

Access to equipment

- Cycle hire/leasing schemes/bikeshare schemes (Brook Lyndhurst, 2016). In some areas, cycle-to-work schemes have seen a 200% increase in orders for bicycles since March 2020 (Cycling UK, 2020). When a bicycle leasing scheme was launched in Barnsley, Doncaster, Rotherham, and Sheffield, 2,430 people registered, and of those surveyed, 70-77% had previously used a car to commute, and 65-71% had made a commitment to cycling to work at least once a week (Cairns et al., 2018).

Secure bicycle storage

- In Nottingham the addition of 14 secure cycle parking hubs were shown to have encouraged 38,500 additional cycle trips and in Reading the provision of secure cycle parking at a single train station led to an increase of 5% in the number of parked bicycles (Brook Lyndhurst, 2016).

Concerns around safety

- As increasing numbers of people use roads and pathways, any initiatives must protect residents, whether they are walking or cycling. For example, even where non-essential traffic is banned, residents place themselves at risk if they need to step off pavements in order to maintain the 2m social distance from other people.
- Safety concerns are frequently cited by prospective cyclists as a reason for choosing not to cycle, however there is limited evidence on interventions that are effective in changing perceptions of safety.
- Reducing speed limits in key areas could be considered, as could widening pavements, particularly given recent statistics that show that driving speeds have increased – the proportion of drivers speeding in Manchester has double to 40% and the average speed in some London 20mph zones is now 37mph (The Guardian, 2020).

Costs

- The travel choices that people make on a day-to-day basis are influenced by the relative costs of taking one mode of transport compared to another. However, perceived costs can be inaccurate e.g. the perception that travelling by car is cheaper than taking public transport doesn't consider the additional costs of car insurance, tax, maintenance etc. (Department for Transport 2017).
- Simple communications that draw attention to the perceived and real costs can lead to an increase in active travel and a shift away from the use of private vehicles.

Effective interventions - Soft measures

An individual's choice to engage in active travel is also influenced by internal and environmental conditions, including their capability, opportunity, and motivation to do so (Michie et al., 2011). The following soft measures have evidence to support their utility in increasing and/or maintaining levels of active travel.

Help people plan their journeys

- Workplace-based personalised travel planning (Cairns et al., 2018).
- Personal travel planning (Brook Lyndhurst, 2016; Cairns et al., 2018). For example, Newcastle City Council worked with Newcastle United to deliver a travel information and journey planning tool for fans travelling to/from the stadium, encouraging the use of public transport, cycling, walking and car sharing (Department for Transport 2017).

Make it social

- Walking groups, led walks, social walks (Brook Lyndhurst, 2016; Cairns et al., 2018).
- Neighbourhood based approaches such as virtual 'community smarter travel hubs' (Cairns et al., 2018).

Collaborate with local schools, workplaces, and services

- School-based and work-based interventions, for example 'Walk/cycle to work/school' days (Brook Lyndhurst, 2016; Cairns et al., 2018).

Emphasise personal and social benefits

- Providing pedometers so that individuals can track their exercise (Brook Lyndhurst, 2016).
- Communicate the benefits to the individual (e.g. mental and physical health) and society (e.g. reduction in carbon emissions) (Thornton et al., 2011).
- Emphasise financial savings from choosing to walk/cycle as opposed to the available alternatives.

Capability and self-efficacy

- People are more likely to engage in walking/cycling if they believe they have the capability (i.e. knowledge and skills) to do so. Providing practical tools and guidance can help people to change their behaviour, as can providing access to networks or forums so that they can learn from others.
- Case studies of people who are similar to the target audience and who have successfully made the behaviour change can also be effective in increasing an individual's confidence in their own ability to change (Department for Transport, 2017).

Intervention Timing

- The timing of an intervention can influence the degree to which the target behaviour is enacted (Thornton et al., 2011). Some of the more innovative approaches included:
 - Marketing along public transport corridors (Cairns et al., 2018).
 - Engagement with people at times of transition (e.g. from school to work) (Cairns et al., 2018).
 - It is useful to consider targeting initiatives at key transition points, for example moving to a new house or children moving to a different school. Getting people to reflect on their habitual behaviours is a good start, and then providing information on alternatives is more likely to be considered (Department for Transport 2017).

Summary of key findings

There is broad consensus across the literature that effective behaviour change requires a systematic and coordinated approach that combines hard (physical/logistical) and soft (behavioural support) actions. Behavioural interventions are less likely to be successful in the absence of enabling infrastructures, and infrastructural changes, whilst necessary, are insufficient to bring about change (Brook Lyndhurst, 2016). For example, on their own, promotional activities such as led rides, cycle challenges and cycle festivals were judged unlikely to be worthwhile unless they were in the context of good quality cycling infrastructure (Brook Lyndhurst, 2016). However, where this infrastructure was in place, rounded approaches that included a combination of bicycle provision (e.g. bike loan schemes, public cycle hire schemes, refurbishment and re-sale), cycle training

and promotional activities had been felt to be successful (Cairns et al., 2018). However, few of the research papers reviewed discussed how to support any changes in infrastructure (hard measures) with behaviour change interventions (soft measures).

As such, for interventions to have the greatest chance of achieving change they should ensure:

- Walking/cycling is easy, fast, reliable, practical, and convenient.
- Any logistical barriers are removed.
- The individual and wider benefits of walking/cycling are communicated clearly.
- Ensure that walking/cycling is safe, and people feel walking/cycling is safe.

BEHAVIOURAL ANALYSIS

COM-B analysis

The following analysis was completed through the application of the COM-B model, part of the Behaviour Change Wheel (BCW) (Michie et al., 2011) – which is a synthesis of 19 behaviour change frameworks that draw on a wide range of disciplines and approaches. The COM-B is a widely used tool for analysing three key influences upon behaviour: capability, opportunity, and motivation.

Walking influences

Capability

People are more likely to continue walking, rather than returning to less sustainable modes of transport such as driving, if they have the physical and psychological capability to perform the behaviour. For example:

- They know how to reach their intended destination by walking.
- They have the required level of physical fitness to walk to their intended destination.
- They understand the health and wider benefits of walking.
- They are able to walk to their destination whilst also maintaining social distancing requirements.

Opportunity

People are more likely to continue walking, rather than returning to less sustainable modes of transport such as driving, if the physical and social environment around them provide support to perform the behaviour (opportunity influences). Specifically:

- There are clear pathways that enable the person to walk to their intended destination.
- They have the time required to walk to their intended destination.
- They see more examples of other people walking, rather than driving, and are aware that most people in their community are walking.
- They are able to stop and take a break in a location that provides shade and shelter.

Motivation

Convenience has been identified as one of the most influential factors upon whether or not someone opts to walk rather than drive or take public transport. People are more likely to continue walking, rather than returning to less sustainable modes of transport (such as driving), if doing so is consistent with

their identity, values, their beliefs about their ability to walk and the consequences of doing so, and the emotional and habitual processes that underpin walking (motivational influences). Specifically:

- They have an intention to continue walking and a high level of perceived behavioural control (a belief that walking is within his/her control).
- They believe that walking is a safer option for them in relation to risks of contracting Coronavirus.
- They believe and value the wider benefits of walking, for example the positive impact upon the environment.
- People known to them, with whom they share a common identity, are also choosing to walk rather than drive.

Cycling influences

Capability

People are more likely to continue cycling, rather than returning to less sustainable modes of transport such as driving, if they have the knowledge and skills required to perform the behaviour (capability influences). Specifically:

- They know how to reach their intended destination by cycling.
- They have the required level of physical fitness to cycle to their intended destination.
- They have the required level of skill to cycle proficiently.
- They can cycle to their destination whilst also maintaining social distancing requirements.
- They can maintain their bike, either directly (e.g. fixing it themselves) or indirectly (e.g. knowing where to take it).

Opportunity

People are more likely to continue cycling, rather than returning to less sustainable modes of transport such as driving, if the physical and social environment around them provide support to perform the behaviour (opportunity influences). Specifically:

- There are clear pathways that enable the person to cycle to their intended destination.
- They have the time required to cycle to their intended destination.
- They see more examples of other people cycling than driving and are aware that most people in their community are cycling.
- They are able to store their bike in a safe and secure location when they arrive at their destination.
- There are no financial barriers to buying or maintaining their bike.

Motivation

Convenience has been identified as one of the most influential factors upon whether or not someone opts to walk rather than drive or take public transport. People are more likely to continue cycling, rather than returning to less sustainable modes of transport such as driving, if doing so is consistent with their identity, values, their beliefs about their ability to cycle and the consequences of doing so, and the emotional and habitual processes that underpin cycling (motivational influences). Specifically:

- They have an intention to continue cycling and a high level of perceived behavioural control (a belief that cycling is within his/her control).
- They believe that cycling is a safer option for them in relation to risks of contracting Coronavirus.

- People known to them, with whom they share a common identity, are also choosing to continue cycling rather than drive.
- They value the benefits of cycling, to themselves or to others.

Summary

The COM-B framework provides a robust and systematic way of conducting an analysis of the three key influences upon any given behaviour, in this instance, residents walking and/or cycling. The following section applies the COM-B analysis to the key insights gained from the review of the research, with a series of recommendations on how to increase active travel amongst Hertfordshire residents. Some examples of how each recommendation might be pragmatically applied are provided.

RECOMMENDATIONS

The following recommendations are informed by the literature discussed within this paper, and the suggestions detailed above. They have been grouped into categories which reflect the broad aims of the recommendations:

- Make it as easy as possible for people to walk/cycle.
- Emphasise the benefits of walking/cycling.
- Ensure that walking/cycling is safe and communicate this safety to people.
- Increase sense of responsibility to others.

Make it as easy as possible for people to walk/cycle

Recommendation 1

Provide easy access to information on walking/cycling routes, particularly those linking key areas. Ensure that recommended walking/cycling routes are feasible/match with people's current level of fitness.

Recommendation 2

Introduce markers on pathways/cycle paths to indicate direction to walk/cycle, and examples of the two-meter distance.

Recommendation 3

Provide access to, or signpost to, personal travel planning tools and resources.

Recommendation 4

Provide access to cycle proficiency training.

Recommendation 5

Provide access to bicycle maintenance, either directly or indirectly by providing training on fixing basic issues.

Recommendation 6

Ensure that all current footways and cycle paths are in good condition and are well maintained.

Recommendation 7

To make walking/cycling as easy as possible, think about the whole duration of a journey and potential obstacles along the way. For this reason, ensure that, along the journey, there are places to stop and take a break should people need to, as well as opportunities for shade and shelter in case of adverse weather conditions. Moreover, make sure crossings are easy to spot and safe to use.

Recommendation 8

Provide ample, secure storage for bicycles in key areas such as town centres.

Recommendation 9

Introduce bike lease schemes and/or discounts on bikes to avoid financial barriers related to purchasing necessary equipment.

Recommendation 10

For people that have very poor levels of fitness and/or it would take a considerable amount of time for them to improve their fitness up to a suitable level, e-bikes could potentially bridge this gap and enable a wider demographic to start cycling as well as cycle for longer and travel longer distances.

Emphasise the benefits of walking/cycling

Recommendation 11

Remind people of the benefits of walking/cycling over driving, including increasing fitness for the individual, for others, and for the environment. Display signs and posters in prominent and relevant areas in the community, and via social media. Encourage people to take small steps that are achievable given their current levels of fitness.

Recommendation 12

Communicate to people the benefits of walking/cycling for the individual (health, financial and social), for others and for the environment.

For the individual:

Health – Provide feedback on behaviour, so that people can link the choice they made to walk/cycle to the individual health benefits they will experience as a result of making that choice. For example:

- Provide/signpost to pedometers so people can track their steps taken and better understand the positive impact on health (knowing how much calories a trip by feet would burn can motivate people to walk).
- Provide a comparison between taking the car vs. walking for a specific journey that people already know well. Communicate clearly to people the health benefits of choosing walking vs. driving for that specific journey.

Financial – Savings associated with walking/cycling as opposed to driving.

Social – You can try to highlight the social benefits of active travel using messages like the following: “Walking/cycling does not have to be an activity you do on your own. You can walk/cycle with family/colleagues”. Be aware that messaging should not conflict with requirements for social distancing/lockdowns.

For others: emphasise that walking/cycling means cleaner air for everyone, reduced risks of driving for people for which walking/cycling is not an option and that every time you walk/cycle you get healthier and the healthier you are, the more energy you have to do things.

For the environment: emphasise that walking/cycling leads to cleaner air and a reduced carbon footprint.

Recommendation 13

If along the walking/cycling journey there are useful checkpoint locations (post, bank, GP etc.), remind people of this, so they can experience the benefit of completing several tasks with just the one trip.

Recommendation 14

If along the walking/cycling journey there are new things to see and visit (e.g. new local events when the pandemic will be over), remind people of these, as that is likely to motivate them to choose active travel.

Ensure that walking/cycling is safe and communicate this safety to people

Recommendation 15

Ensure walking/cycling routes/paths indicate direction, with examples of the two-meter distance.

Recommendation 16

Ensure that perceptions of safety are addressed by widening pathways/cycle lanes to enable people to walk/cycle whilst maintaining social distancing requirements.

Recommendation 17

Ensure that perceptions of safety are addressed by, if possible, reducing speed restrictions and introducing segregated cycle lanes to enable people to cycle safely in areas of traffic.

Recommendation 18

Communicate how safe the roads are for cyclists to reduce the perception that cycling is not safe.

Recommendation 19

Communicate to drivers about driving safely, and in a way that cyclists can see.

Increase sense of responsibility to others

Recommendation 20

If suitable, communicate that others in the area and more broadly, are choosing to walk and cycle, committing to keeping Hertfordshire safe.

Recommendation 21

Provide case studies and testimonials of people who have continued with active travel, particularly with examples from in-groups (people we perceive as belonging to the same social groups that we identify with, e.g. other people from the same city/neighbourhood).

Recommendation 22

To help improve the safety of cyclists, promote the wearing of cycle helmets and high visibility clothing.

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