

Questions and Answers from 'Health Benefits of Walking and Cycling' Webinar – 29/01/19

Background

Following publication of [Cycling and walking for individual and population health benefits: a rapid evidence review](#) a webinar was held with the authors for discussion of the content with over 235 people participating.

Presenters were: Paul Kelly (University of Edinburgh) and James Woodcock (University of Cambridge) (authors of the Study), Mike Brannan (PHE) and Guy Boulby (DfT).

This document provides answers from the presenters and authors to question raised through the interactive discussion but not answered during the webinar. It also collates the comments made by participants.

Questions and answers from authors and presenters

Will there be any ring-fenced capital funding for walking and cycling infrastructure made available for local authorities? We often find it difficult to gain political will to install cycle infrastructure over schemes for the car unless the funding is ring-fenced!

Ring-fenced funding for this Spending Review period (2015/16-2020/21), eg for the Access Fund and Cycle Ambition Cities funding, has already been allocated.

Are there any plans to deliver a Bikeability scheme for adults?

Many Bikeability organisations already run training schemes for adults and some are funded by Local Authorities (but not directly by DfT). DfT will be considering development of the Bikeability scheme as part of the forthcoming Spending Review.

While it is positive to see the doubling of spend to £7 per head, however the recommend is £10 even £20 per head. Are there any plans to increase funding allocated to delivery of cycling infrastructure?

Decisions on local transport investment is devolved to local authorities. The majority of future funding is likely to continue to come from cross-Government infrastructure funds, like the Transforming Cities Fund and Housing Infrastructure Fund and successor to the Local Growth Fund. Funding post 2020/21 will be subject to the forthcoming Spending Review.

What are the plans for the Access Fund and Bikeability fund after March 2020 when the current programmes end?

Funding post 2020/21 will be subject to the forthcoming Spending Review.

Are there any plans for a more targeted approach to encourage women to take up cycling?

No new dedicated interventions are planned, but we know that encouraging greater levels of cycling from wider groups is key to meeting our aims and targets. Many Access Fund initiatives run by Local Authorities are used to encourage take-up by wider groups. Additionally, behaviour change schemes, such as Big Bike Revival, also target women, amongst other groups. Action to improve cycling safety more generally also helps to encourage women to cycle.

What are the links being made to public transport providers and the developments in that infrastructure? Active Travel by cycling or walking is only half of the commute and if we are to shift people out of cars then this also needs to be part of the holistic response to this work.

This is a key area that is considered in developing Local Cycling and Walking Infrastructure Plans (LCWIPs), which seek to prioritise investment in areas where take-up is likely to be highest. Cycle Rail is the key cross-modal programme that DfT runs – we are about to open a bidding round for £5.6m of projects in 19/20, to install cycle racks, improve security and ease access to railway stations for cycles.

Similar to LAs, will there be a capital funding pot for the private sector to apply for to help us (I represent shopping centres) to provide secure parking and shower facilities? Schemes like TCF appear to be focussed on bigger ticket, infrastructure schemes

Almost all funding schemes are open to LAs only, but they work very closely with local businesses, schools and local groups when bidding for support. For instance, improvements in cycle parking for shopping centres would be eligible under MHCLG's High Streets Fund, now open for bids.

What's the view on electric bikes? Whilst they may be a good way for people to get into cycling if they have low fitness or challenging topography. If people ride electric bikes the health benefits to them will be less. Applies both to transport & leisure.

e-Bikes are relatively new and far less common than regular bikes. As a result there is a less mature evidence base at the current time from which we can make conclusions and recommendations.

A 2018 systematic review reported: "Seventeen studies (11 acute experiments, 6 longitudinal interventions) were identified involving a total of 300 participants. There was moderate evidence that e-cycling provided physical activity of at least moderate intensity, which was lower than the intensity elicited during conventional cycling, but higher than that during walking. There was also moderate evidence that e-cycling can improve cardiorespiratory fitness in physically inactive individuals. Evidence of

the impact of e-cycling on metabolic and psychological health outcomes was inconclusive. Longitudinal evidence was compromised by weak study design and quality.” (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6249962/>)

In two tools, the Propensity to Cycle Tool (www.pct.bike <https://www.cedar.iph.cam.ac.uk/resources/evidence/eb-14-englands-cycling-potential/>) and the Impacts of Cycling Tool (www.pct.bike/ict <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002622>), we have estimated cycling potential and health benefits for electric assist bikes. In these tools we assumed that e bike use has similar physical activity exertion (intensity) per minute as walking. We also assumed that people would be willing to cycle longer trips with an e bike (based on data from the Netherlands) and that hilliness would be less of a barrier (based on data from Switzerland). Our results suggest that overall population health benefits would be broadly similar for e bikes as for traditional bikes because the gain in trips that could be cycled approximately balanced out the reduced physical activity from faster and less physically intensive cycling. However, within these overall results some areas would see a much bigger increase in cycling potential than others. It should also be noted that carbon savings would be much greater with e bikes than car travel.

Are there plans to have more C&W infrastructure funding sources accessible to rural areas?

See answer to question 3, although I acknowledge that not all cross-Government funding schemes are open to rural areas.

Could it be clarified what this PHE review tell us that previous studies haven't done? How does this relate to work being carried out by Sport England/Sustrans in this area?

This evidence review tells us the state of the evidence base for walking and cycling up to late 2018. It reports what previous studies have told us. Importantly it brings together a very broad spectrum of evidence from these previous studies reporting physical, social, mental, and wider population benefits in a way that has not been done before. It should be viewed as a primary reference point when making the case for walking and cycling as it shows how broad and far reaching the benefits of walking and cycling are. It also highlights the need for addressing gaps around disability, long-term conditions, and deprivation.

Does the aim to double the number of cycling journeys consider existing local trends and variances? Where there is a very low base of cycling journeys (example of Burnley given in Guy's presentation) doubling wouldn't amount to much change to number of people cycling

The cycling aim in the CWIS covers all stages undertaken in England but doesn't assume uniform increases across the country. Increases in cycling activity are likely to be 'lumpy' depending on where action and investment is undertaken.

Local variation in cycling potential for commuting and soon for schools can be estimated using www.pct.bike. This has a government target scenario in which cycling doubles nationally, but at the local level this growth is not uniform, in absolute or relative terms. Areas with many short, flat trips and a below-average current rate of cycling are projected to more than double. Conversely, areas with above-average levels of cycling and many long-distance hilly commuter routes will experience less than a doubling. ([https://cdn.rawgit.com/npct/pct-shiny/master/regions www/www/static/03a_manual/pct-bike-eng-user-manual-c1.pdf](https://cdn.rawgit.com/npct/pct-shiny/master/regions/www/www/static/03a_manual/pct-bike-eng-user-manual-c1.pdf))

Is there evidence that dedicated cycle lanes (separated out lanes) are cost effective and safer than shared roads with cycle lanes painted on? If so, should more investment go into these?

Results from London's mini Holland schemes

<https://www.sciencedirect.com/science/article/pii/S0965856417314866> by Dr Rachel Aldred show an increase in active travel and dedicated cycle lanes formed part of area wide investment. In Canada Prof Kay Teschke <https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2012.300762> found that protected tracks had much lower injury risk than other kinds of infrastructure.

Also qualitative evidence, eg from responses to the Cycling and Walking Safety Review indicate that segregated lanes improve safety for cyclists. I'm not aware of finalised post implementation evaluation evidence on new segregated lanes, but pre-implementation appraisals often have BCRs above 2 (ie good value for money).

How much of the per head is spent on infrastructure as opposed to initiatives that encourage cycling/bikeability/media campaigns etc?

The vast majority of projected investment this SR has been used for infrastructure measures (>90%).

Do we know if local authorities use any of the PH Grant on cycling/walking and if so how much and on what and what is the learning from this?

This would require some further evidence / case study collation and analysis.

For the evidence base - were comparisons done with countries with high levels of cycling (rates of diabetes, obesity, mental health etc.) - for example were stats for populations in Copenhagen, Amsterdam etc. reviewed?

Doing these kind of comparisons is difficult because one only has a few countries in the data set and lots of variation to control for (e.g. diet, smoking). The studies we reviewed followed up 1000s of individuals over time and compared those who were

more active against those who were less active and adjusted for factors such as diet and smoking as best they could.

Do you think that changes to the law (such as has been done in the Netherlands) that give more rights of way to cyclists, for example, are a feasible option here in the UK?

Changes to priorities at junctions, as well as other changes to the Highway Code, were suggested by many respondents to the CWIS Safety Review last year. Potential changes will be considered as part of a review of the cycling and walking elements of the Highway Code, which was announced in November 2018.

In terms of what sort of level of intensity of activity is needed for individuals to maximise the benefits - is there any way of getting a feel for what sort of MET hours per week someone who was a regular gym goer might undertake as a comparison?

Consulting the primary reference for such questions (The Compendium of Physical Activities) it can be seen that the range of activities one might do in the gym range from less than regular walking to similar to vigorous cycling <https://sites.google.com/site/compendiumofphysicalactivities/Activity-Categories/conditioning-exercise>. So depending on what the gym goer does, walking and cycling may be comparable or better than the gym. MET values will of course also depend on fitness of the individual.

Importantly, evidence suggests that walking and cycling are much more likely to be maintained into middle and older age than gym going. They are generally more accessible (e.g. in terms of finance or location) and easier to fit into daily schedules. And the report shows they have wider benefits in terms of pollution and reduced congestion, that gym going does not. So on balance, I view walking and cycling as better population health options.

We are talking about aerobic activity here, and the CMO recommends muscle strengthening activities twice a week as well which may also give an important role to the gym.

The majority of the benefit from being physically active appears to come from reaching the target of 150 minutes per week of moderate to vigorous activity. Some additional benefit will be gained from reaching a higher level of 300 minutes per week. Beyond this the benefits are likely small, but the evidence base is not as clear. There are also benefits from combining cardiovascular exercise with some strengthening exercise. For reducing risk of obesity the more activity, the better.

Are there any steps being taken by the government to address the data gap in relation to the health benefits of walking for people with disabilities?

PHE recently commissioned the evidence review: Physical activity for general health benefits in disabled adults: Summary of a rapid evidence review for the UK Chief Medical Officers' update of the physical activity guidelines. [Access here](#) along with [an infographic](#) adopted by the Chief Medical Officer.

Does existing/will new HEAT include a reasonably full range of Mental Health benefits - will the results of this PHE review work feed into HEAT or WebTAG?

The latest version of HEAT does not include mental health benefits, though this is always discussed vigorously when the HEAT Group meets to plan updates. To summarise lengthy discussions in a single sentence, the current economic model of HEAT focusses on mortality and the Value of Statistical Life, and a way to harmonise this with valuing mental health benefits has not yet been agreed.

The current PHE Review has been sharing with the HEAT Team and is likely to be considered at the next team meeting. I agree that the mental health benefits of walking and cycling are an important part of the case for promotion.

Cycling tools like the PCT tend to focus on how we can get as many people cycling as possible. Do we need to do more to account for population need, especially from a health perspective - for example the health benefits for women, people from more deprived communities, older people are likely to be greater than for middle class white males?

The PCT takes account of the age and gender of the cyclists, and the local mortality rates (affected by deprivation). Previously it has done this using aggregate data but in the new version coming soon we will be using individual level data (though not all individual risk factors can be included at the moment). Of note mortality rates are of course strongly related to age, however as men have higher average mortality than women increasing cycling amongst men generally has greater health benefits, even if not desirable from a social equity perspective.

The majority of focus/research/funding streams for active travel seem to focus more heavily on cycling over walking? What more can be done particularly in terms of infrastructure to promote walking?

Almost all cross-Government infrastructure funding can be used for walking as well as cycling. This is the majority of funding that is available. It is only a few ring-fenced schemes that are cycling only, eg Cycle Ambition Cities and Bikeability.

Walking plays a really important role in our current transport system and brings large health benefits. Maintaining and increasing this is important. However, increasing cycling does have a lot more potential both because of the lower baseline and the greater number of trips that are cyclable. Also in urban areas (less so in rural areas) there is already protected space for walking (pavements).

Is there any news on the potential to revise national highways regulations and guidance, which are heavily biased towards enabling convenient and rapid movement by car?

National highways design guidance for cycle infrastructure (specifically) is currently being updated - currently called LTN 2/08. The update is due fairly soon.

Following up on Paul Clarke's question, is anyone aware of good practice infrastructure and/or other initiatives which have successfully increased walking at a city or local authority level (especially among people likely to benefit the most in health terms)?

The LSTF evaluation has good evidence.

The mini-Hollands scheme in London study found an increase in active travel with walking as well as cycling seeming to go up

<https://www.sciencedirect.com/science/article/pii/S0965856417314866>

Comments from participants

Excellent overview Guy thanks. One point that may be worth making is that the increase in distance travelled by existing cyclist's means there is unlikely to be a measurable population health benefit. We need more new cyclists to benefit from the impacts of physical activity.

Not necessarily a question, but worth considering that people from the lowest socio-economic groups may not be able to afford a bike (+cycling equipment) and that these are the people most at-risk of physical inactivity, obesity etc. Innovative schemes are essential for increasing cycling uptake in those who really need it.

Thanks Tessa (in reply to Medway PH team funding a cycling and walking officer). We fund some at Nott's CC but I wondered if we have a national picture we can learn from. Something that PHE could collate. Also do any spend any on cycling rather than other PA/obesity prevention due to evidence of cost effectiveness?

Regarding local authority investment, NICE are currently consulting on their draft Quality Standards on Encouraging physical activity in the general population, including Quality statement 1, "Local authorities and healthcare commissioners have a senior level physical activity champion to oversee the development and implementation of local strategies, policies and plans." You have till Friday to comment on the proposed quality measures and data sources.

Derby has an ebike scheme. 6months in it is very popular, and looking to expand. Data that ebiking effort = walking effort is good message.

Some of the results of Jon Little / Clyde Loakes work in Waltham Forest here in ongoing study <https://www.lshtm.ac.uk/newsevents/news/2018/transport-londons-mini-holland-programme-associated-more-walking-and-cycling>

RE: evidence of benefits for segregated cycle infrastructure over painted lanes on carriageway, sustrans Bike Life 2017 found 64% of respondents "would cycle more if routes were created, physically separated from traffic

https://www.sustrans.org.uk/sites/default/files/file_content_type/bike-life-2017-summary-report.pdf