

Cycle superhighway consultation from CEDAR, MRC Epidemiology Unit, University of Cambridge

This submission is in response to both the consultation on the East-West Cycle Superhighway and the North-South Cycle Superhighway

CEDAR is a UK CRC Centre of Excellence (<http://www.cedar.iph.cam.ac.uk/>). Physical activity, and within that active travel, form a substantial part of our research and we have published extensively on cycling. Our research covers evaluation of interventions, correlates of active travel, and health impact modelling of changes to how people travel.

CEDAR welcomes these proposals that have the potential to contribute to the uptake of cycling in London and so benefit the health of Londoners. In particular we welcome the increased use of protected space for cyclists from motor vehicles.

Physical activity is important for good health across the life course. Being more physically active reduces the risk of premature mortality (Kelly et al 2014) and the risk of a wide range of diseases including ischemic heart disease, stroke, dementia, depression, type II diabetes, and some cancers (Lee et al 2012, Warburton et al 2010). Recent evidence from CEDAR suggests a benefit for active travel commuting over car in terms of mental well-being (Martin 2014). However, most populations (including that of London) do not achieve sufficient activity (GLA 2014).

How people travel matters for physical activity. Our research, including results for the GLA (GLA 2014), has shown the contribution of current travel patterns for health and the potential for greater benefits (Woodcock et al 2013). Our work for the GLA showed that the walking Londoners do both to access public transport and for main mode walking trips means that Londoners are on average more active than other, more car dependent areas, in England and Wales (GLA 2014). However, we also found that there is the potential for considerably more physical activity and much greater health benefits if London could achieve its cycling potential. This is both because a much higher proportion of trips are within cycling than within walking range and because cycling is a more vigorous form of physical activity than walking and per hour and hence comes with greater benefits. The experience of the Netherlands (and to a lesser extent Germany, Denmark, and Sweden) and from England's highest cycling city (Cambridge) show that cycling has the potential to be a form of physical activity across population groups and maintained across the life course. Population level benefits are greatest if activity can be maintained at older ages when disease risks are highest. (Woodcock et al. 2014)

Unfortunately cycling in the central London area comes with avoidably high risk of serious injury and death (Woodcock et al 2014). Generally risks of death by age group are many times higher in the UK compared with the high cycling Netherlands (Mindell et al 2012), and risks seem to be particularly high in central London (Woodcock et al 2014). The evidence is not yet available to fully understand the reasons for these very large differences but part of the explanation is likely to lie with the infrastructure provided in the Netherlands that protects cyclists from motor vehicles. Evidence from Canada has shown substantially lower risks in streets with separated infrastructure (Teschke et al 2012, Harris et al 2013).

The benefits of providing this infrastructure are potentially both from reducing fatalities and serious injuries but also encouraging uptake and hence physical activity. Data collected by TfL shows that fear of motor traffic is the most reported reason for not cycling (TfL 2013). Stated preferences are strongly in favour of protected space (Steer Davies Gleave 2012). Modelling work from New Zealand supports the idea that high quality segregated infrastructure would lead to sustainable long term increases in cycling (Macmillian 2013). Recent work from CEDAR as part of the iConnect study shows that new traffic-free routes can be effective in

promoting increases in walking, cycling and overall physical activity (Goodman et al 2014). Even though that evidence comes from outside London, it is the first study to demonstrate such an effect in the UK.

Finally, we would like to call for the superhighway scheme to be fully evaluated in respect of both behaviour change and public health impacts and for the results of this need to be made fully available. Rigorous evaluation is appropriate for major expenditure and can provide a stronger evidence for future schemes.

Dr James Woodcock on behalf of CEDAR

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