To:	Management of Place
From:	Adrian Davis
Date:	11th February 2019
Subject:	Essential Evidence on a page: No 181 Can environmental improvement change the population distribution of walking?

Top line: Environmental improvement can encourage the less active to take up walking for transport, as well as encouraging those who were already active to walk more.

Evidence addressing the origins of disease supports an association between physical activity and lower risk of diabetes, cardiovascular disease and mortality, but many people remain insufficiently active. Public health advocacy increasingly focuses on everyday activities such as walking as a target for intervention. Walking can be incorporated into everyday life relatively easily and if performed at moderate pace meets the definition of moderate intensity activity. Modifying environments to make walking easier could produce widely distributed and sustained health benefits.

Connect2 was a programme of engineering projects that aimed to make local walking and cycling journeys easier by constructing or improving routes at sites around the UK.[1] The before-and-after evaluation of the Connect2 projects in Southampton, Kenilworth and Cardiff found that living closer to the new infrastructure was associated with increases in walking, cycling and overall physical activity at 2-year follow-up.[2] Previous analysis concluded that the new routes were mostly used for walking. This forms the behavioural focus informs the analysis described below. Researchers aimed to describe changes in walking in the sample, identify groups of participants whose walking behaviour changed in similar ways and investigate the extent to which walking group membership differed by socio-demographic or health characteristics or exposure to the intervention.

Connect2 projects were located at 79 UK sites. Each project included a core component, such as a bridge over a busy road, railway or river, together with the development or improvement of feeder routes. Interventions of this kind provide an opportunity to generate evidence about impacts. 1257 adults completed annual surveys assessing walking, socio-demographic and health characteristics and use of the infrastructure. Residential proximity to the new routes was assessed objectively.[3] The researchers found five groups who changed their walking levels (existing walkers) in similar ways and membership of these groups was socioeconomically patterned i.e. more likely to have lower household incomes, lower levels of household incomes and no access to a car. Proximity to the intervention was associated with short-lived increases in and uptake of walking for transport for all groups. Supportive environments may help initiate behaviour change. Exposure to an intervention was associated with sustained increases in walking, often with growth larger after year one. However, those who reported minimal walking at baseline were less likely to take up walking during the study, a pattern consistent with the existing evidence.

[1] Ogilvie, D., Bull, F., Cooper, A., et al. 2012. Evaluating the travel, physical activity and carbon impacts of a 'natural experiment' in the provision of new walking and cycling infrastructure: methods for the core module of the iConnect study. *British Medical Journal Open*, 2:e000694.

[2] Goodman, A., Sahlqvist, S., Ogilvie. D., on behalf of the iConnect consortium. 2014. New walking and cycling routes and increased physical activity: one-and two-year findings from the UK iConnect study. *American Journal of Public Health*, 104:e38–46.

[3] Panter, J. Ogilvie, D., on behalf of the iConnect consortium. 2017. Can environmental improvement change the population distribution of walking, *Journal of Epidemiology and Community Health*, 71: 528-535