

**To:** Transport & Health Policy Makers, & Practitioners  
**From:** Prof Adrian Davis, TRI, Edinburgh Napier University  
**Date:** 30<sup>th</sup> April 2024  
**Subject:** Essential Evidence 4 Scotland No.84: Health through stealth

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Top Line: The University of Bristol Transport Plan was initiated to reduce congestion and parking. Increasing physical activity or improved health was not an objective of the policy yet has likely contributed to both.

Promoting participation in regular, moderate-intensity physical activity is a public health priority in the UK and Europe. Physical activity reduces the risk of morbidity and mortality from cardiovascular disease, diabetes and some cancers, and assists in the maintenance of a healthy weight. Additionally, regular physical activity can reduce the risk of depression and dementia, and has positive benefits for mental well-being. There are few published evaluations of the effects of organization travel policies on enhancing physical activity.

In Bristol, UK, a study was undertaken to investigate the effect of a workplace travel plan, which mainly focused on restricting parking opportunities, on levels of active commuting and its potential to contribute to public health (response rates around 50%).<sup>1</sup> The main survey variable selected for trend analysis was employees' usual mode of transport to work. In order to characterise active commuters, the 2007 data were used to determine associations between demographic factors and mode of travel to work, and the contribution of active travel to recommended minimum physical activity levels each week.

Between 1998 and 2007, the percentage of respondents who reported that they usually (four to five times per week) walk to work increased from 19% to 30%. The percentage of respondents who reported that they usually cycle to work increased from 7% to 12%. Over the same period, the percentage of respondents who usually commuted by car decreased from 50% to 33%. The percentage of respondents who reported that they usually commuted by other motorised modes of transport showed an overall increase from 24% to 25%. These changes appear to have been gradual. During the first 2 years (to 2001), the 8% decrease in regular car use was accompanied by a 3% increase in commuting by other forms of motorised transport such as buses. Levels of walking and cycling were higher for each subsequent survey over a period of 9 years.

In the 2007 survey, 42% of respondents usually walked or cycled to work (at least four times per week). The conservative estimates of time taken suggest that approximately 70% of these commuters were meeting at least 80% of the weekly recommended guidelines of 150 min of physical activity. In addition, approximately 70% of 'sometimes' walkers and cyclists (two to three times per week) were estimated to be meeting >40% of their physical activity requirement.

Change in travel behaviour appears to have been stimulated by the introduction of a range of costs, such as limited and more expensive parking, accompanied by increasing the attractiveness of alternative modes of transport to the car. Although this Travel Plan was not conceived as health promotion, the data indicate that it may have achieved a level of change in physical activity that has rarely been reported in purpose-designed physical activity interventions.

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<sup>1</sup> Brockman. R., Fox, K. 2010 Physical activity by stealth? The potential health benefits of a workplace transport plan, *Public Health*, 125(4): 210-216.