Switching to public transport or cycling/walking to get to work might help shed the pounds

7 May 2015

This is an image of a weight scale. Credit: CDC/Debora Cartagena

Switching from driving to work to using public transport, walking, or cycling might help commuters shed weight within a couple of years, suggests research published online in the *Journal of Epidemiology & Community Health*.

Given that car use is high, the findings strengthen the case for incentivising walking or cycling to boost population health, suggest the researchers.

They base their findings on the responses of 4000 people to three waves of the British Household Panel Survey (BHPS) in 2004-5, 2005-6, and 2006-7.

The BHPS is a long term annual study of a representative sample of adult Britons which began in 1991-2.

At each time point, respondents described their usual main mode of transport for their daily commute, and provided details of their height and weight (BMI) in 2004-5 and in 2006-7.

The researchers used a series of analyses to see if changes in mode of transport were linked to changes in weight over a two year period.

In the first analysis, which included 3269 respondents, 179 people had stopped driving to work and were either walking or cycling (109) or taking public transport (70).

The 'switchers' tended to be younger and less likely to have access to a car than those who continued to drive.

Those who chose to walk or cycle instead tended to have a lower household income and a shorter commute—which became shorter still after making the switch—while those who opted for public transport were significantly more likely to be more highly educated.

Switching from a car to walking, cycling, or public transport was associated with a statistically significant average reduction in BMI of 0.32 kg/m^2 after taking account of other influential factors—equivalent to a difference of around 1 kg a person, on average.

The longer the commute, the stronger was the association, with a reduction in BMI of 0.75 kg/m2 (equivalent to a weight loss of around 2 kg) associated with journeys of more than 10 minutes, and 2.25 kg/m2 associated with journeys of more than 30 minutes—equivalent to weight loss of around 7 kg, on average.

In the second analysis, which included 787 people, 268 switched from active to passive travel. Some 156 stopped walking or cycling and 112 switched from public transport (usually a bus or coach) to the

car.

Once again, the 'switchers' tended to be younger than those who continued with their mode of transport.

Those who stopped walking or cycling to work were significantly less likely than those who stopped using public transport to be in a managerial or professional post. They also tended, on average, to have a shorter commute, which lengthened after the switch.

Those who had previously used public transport, on the other hand, had a short commute after the switch.

But switching to a car was associated with a significant weight gain of around 1kg per person (or 0.34 kg/m^2) after taking account of other influential factors.

This is an observational study, so no definitive conclusions can be drawn about cause and effect. Nevertheless, the analysis of individual level changes in BMI over time between the two groups of switchers, using data from a nationally representative survey, strengthens their findings, say the researchers.

If a larger proportion of commuters were able to abandon their cars for a more physically active commute, this could help drive down the average population BMI, they suggest.

"Combined with other potential health, economic, and environmental benefits associated with walking, cycling and public transport, these findings add to the case for interventions to promote the uptake of these more sustainable forms of transport," they write.

More information: Impact of changes in mode of travel to work on changes in body mass index: evidence from the British Household Panel Survey , *Journal of Epidemiology & Community Health*, DOI: 10.1136/jech-2014-205211

Provided by British Medical Journal