

To: Transport & Health Policy Makers, & Practitioners
From: Prof Adrian Davis, TRI, Edinburgh Napier University
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Subject: Essential Evidence 4 Scotland No. 14 The potential for shifting short motorised trips to walking

Top line: There are few assessment of the potential of walking to provide planners and decision making with estimates of increased walking potential to make them aware of the amount of trips walking could support if relevant policies and strategies were implemented.

In this era of widespread obesity and sedentary lifestyle, there is a growing interest in the role of active transport in increasing physical activity and help meet the recommended levels. Reaching destinations on foot or cycling—as long as they are not too far—provides a good opportunity for integrating physical exercise in the daily routine. Moreover, this adds to other benefits of active transport, such as reductions of energy consumption, air pollution, greenhouse gas emissions, congestion, and travel costs.

In Sweden, the odds of being overweight or obese was found lower among adults walking or cycling to work compared to those driving to work by car. Data from the 2003 New South Wales Adult Health Survey in Australia revealed that commuters driving to work were less likely to achieve recommended levels of physical activity compared to non-car users; moreover, men who cycled to work or used public transit were less likely to be overweight and obese compared to those driving to work. In Atlanta, researchers found that each additional hour spent in a car per day was associated with a 6% increase in the likelihood of obesity; in this study, each additional kilometre walked per day was associated with a 4.8% reduction in the likelihood of obesity.¹ On the other hand, active commuting to work was found positively associated with fitness in men and women, and inversely associated with body mass, obesity, blood pressure and insulin in men.

Another study highlights the potential of walking as an alternative to motorised travelling for short trips in the Greater Montreal Area.² When solely considering the threshold distance criteria, proportion of transferable trips amounts to 10.2% of motorized daily trips in 2008. Taking into account the fact that not all short motorized trips can be transferred to walking results in 7.7% of all motorized daily trips that could be walked. The possible benefits in terms of physical activity increase are still significant.

In addition to providing a global estimate of the potential of walking, this paper shows that threshold distances have increased for most of the population segments from 2003 to 2008, suggesting that distances people are walking increase over time. On a person-based level, the research estimates that more than 255,000 people could add walking to their daily travel behaviour from their short trips, some 2402 'steps in reserve' per day for men and 2358 for women. Making these estimates available increases the probability that walking will be considered as a transport mode in a planning process and have higher considerations in plans. Opting for active transport is recognised as one of the main strategies for moving to low-carbon transport. Often, this would require changes in the built environment in order to make it safer, more pleasant and convenient for pedestrians.

¹ Frank, L. Andresen, M., Schmid, T. 2004. Obesity relationships with community design, physical activity, and time spent in cars, *American Journal of Preventive Medicine*, 27: 87-96.

² Morency, C., Demers, M., Poliquin, E. 2014. Shifting short motorised trips to walking: the potential of active transportation for physical activity in Montreal, *Journal of Transport & Health*, 1(2) 100-107.