

To: Neighbourhoods and City Development

From: Adrian Davis

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Subject: Essential Evidence on a page: Co-benefits as a new approach to optimising public policy effectiveness

Top line: As societies confront the economic, social and environmental effects of climate change, population growth, traffic congestion and the burden of chronic disease, there is a unique opportunity to view the benefits of active transportation through a multi-sector lens.

The societal benefits of even a modest increase in those who are physically active could be large. A study of Scandinavian adults found that death rates in workers who cycled to work were 28% lower than others.¹ Similarly, a Chinese study found a 20–50% lower risk of early death in women who regularly exercised or cycled for transport.² A UK study identified that children who walked or cycled to school were fitter than those who travelled by bus or car, with fitness 30% higher in boys who cycled and 70% higher in girls.³

A recent paper from Australia set out some of the economic co-benefits⁴ accruing from increases in active travel.⁵ The researchers modelled a 5% increase in bicycle trips in Australia and calculated that it would save around \$1.7 billion on 2007-08 health expenditure. Beyond significant health benefits promoting active transport confers numerous other social, environmental and economic benefits. Pedestrian and cycling-friendly neighbourhood designs facilitate incidental contacts between neighbours and appear to foster social capital (i.e. social networks, norms and trust). Numerous studies show positive associations between social capital and physical and mental health, and health promoting behaviours. Social capital may promote positive social norms while simultaneously controlling anti-social behaviours that can fuel feelings of insecurity.

Changes to neighbourhood design could also produce benefits for the local micro-economy. Increasing population densities and boosting local pedestrian and cycling traffic flows can increase the economic viability of cafes and corner stores, and improve access to jobs and services without increasing congestion or vehicle emissions. This is reported elsewhere. For example, researchers also report that in Toronto, people who bike and walk to Bloor Street, a commercial street, reported they spent more money in the area per month than those who drove there.⁶

The language of co-benefits is useful as it helps breaks down policy silos and presents additive (rather than discrete) benefits that could be incorporated in economic analyses to assess cost-effective strategies. Moreover, it could inform debate and facilitate assessment of policy alternatives to optimise outcomes for society.

¹ Andersen LB, Schnohr P, Schroll M, Hein HO. 2000 All-cause mortality associated with physical activity during leisure time, work, sports, and cycling to work. *Archives of Internal Medicine*;160: 1621–8.

² Matthews CE, Jurj AL, Shu XO, Li HL, Yang G, Li Q et al. 2007 Influence of exercise, walking, cycling, and overall nonexercise physical activity on mortality in Chinese women. *American Journal of Epidemiology*; 165(12): 1343–50. doi:10.1093/aje/kwm088

³ Voss C, Sandercock G. 2010 Aerobic fitness and mode of travel to school in English schoolchildren. *Medicine and Science in Sports Exercis*; 42(2): 281–7. doi:10.1249/MSS.0b013e3181b11bdc

⁴ See Essential Evidence No 42 www.bristol.gov.uk/tpevidencebase

⁵ Giles-Corti, B, Foster, S., Shilton, T., Falconer, R. 2010. The co-benefits for health of investing in active transportation, *NSW Public Health Bulletin*, 21(5-6): 122-127.

⁶ Clean Air Partnership: 2009 Bike lanes, on-street parking and business: A study of Bloor Street in Toronto's Annex Neighbourhood, <<http://www.cleanairpartnership.org/pdf/bike-lanes-parking.pdf>.