



New approaches needed to evaluate active travel policies

A new analysis has indicated that policies to encourage active travel, such as walking and cycling, lead to a large but complex range of health benefits. However, it is not always possible to tell which policy has had which specific impact. The study argues for improved approaches to evaluating travel policy that consider indirect policy impacts.

There is increasing concern about the health impacts of obesity, physical inactivity, pollution, climate change and road traffic injuries. The World Health Organisation (WHO) recently estimated that being overweight and obesity are responsible for 2.8 million deaths annually and physical inactivity is responsible for an additional 3.2 million deaths globally. As such, there are an increasing number of initiatives to encourage physical activity and a growing body of research on the positive impacts of travel policies to increase walking and cycling.

The study reviewed existing research into active travel policies to inform health impact assessments (HIAs) which help decision-makers develop healthy environments.

Policies are usually bundled together, ranging from promotional campaigns to actual changes in the physical infrastructure of a city, such as improving pavements and cycle lanes. In addition, more indirect policies, such as road and parking charges, do not target physical activity, but discourage travel by car thereby promoting walking and cycling. This makes it difficult to pinpoint which policy or initiative is having the most impact. The situation is further complicated by the cultural shifts that occur when cycling and walking increase to a "critical mass" and people consider them safe, enjoyable and fashionable modes of transport, which may lead to greater public demand for active travel policies.

Research has indicated that policies to reduce car use improve air pollution by decreasing emissions of Nitrogen Oxides, Volatile Organic Compounds and particulate matter, as well as exposure to these emissions. This improves health as traffic-related air pollution is associated with a variety of respiratory, cardiovascular, reproductive and neuro-developmental effects. A large body of evidence suggests exposure to traffic-related air pollution has a causative role in the development of cardiovascular morbidity, onset of childhood asthma and exacerbation of respiratory symptoms in adults, and in mortality (especially cardiovascular mortality). As well as reducing air pollution, travel policies can also reduce noise and heat.

There is also strong evidence that regular physical activity is associated with good health, reducing the risk of diabetes, depression, osteoporosis and hypertension. However, few studies have investigated the specific health impacts of active travel. Research has also indicated other less obvious effects of active travel, such as improvement in social life and less fear of local crime. In some cases, individuals who shift to active travel could increase their inhalation of air pollutants and exposure to traffic injuries.

It appears that comprehensive multi-level policies may be effective in promoting behaviour changes to more healthy transport but that their impacts are difficult to quantify. Linking policies to changes in behaviour and levels of air pollution is very challenging, as is quantifying the relationships between active travel and less direct impacts, such as changes in culture, crime and green space. To perform effective HIAs, more research is needed that considers the interactive effect of these different policies and conditions, as well as more evaluations which determine which factors cause which impacts.

Source: de Nazelle, A., Nieuwenhuijsen, M.J., Antó, J.M. *et al.* (2011) Improving health through policies that promote active travel: A review of evidence to support integrated health impact assessment. *Environment International*. 37:766-777.

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