

# August 2004 - Paper of the month

**Paper:** Evaluation of the health effects of a neighbourhood traffic calming scheme

**Authors:** Morrison DS., Thomson H., Petticrew M.

**Source:** Journal of Epidemiology and Community Health 2004; 58: 837-840.

## **Main findings**

A prospective cohort study involving randomly-selected households in a community was conducted to assess the impacts of a traffic calming scheme on self-reported physical and mental health, observed pedestrian activity, traffic-related nuisance and neighbourhood satisfaction. Increases in observed walking and general pedestrian activity was reported after the introduction of the intervention while overall neighbourhood satisfaction remained unchanged. While physical health (SF36) improved among those surveyed following the intervention, mental health score did not change.

## **Relevance for policy and practice**

The difficulties of assessing the effectiveness of complex community interventions in changing health behaviours are widely recognized. Even more difficult is the challenge of translating the evidence, if demonstrable, into policy and practice. Although physical activity researchers and practitioners have acknowledged that environmental interventions [eg. engineering measures] represent immense potentials in influencing physical activity, such approaches are rarely or adequately evaluated.

This paper was selected as an example of a good environmental intervention practice on the following merits:

- It highlights the feasibility of implementing and evaluating a community-wide intervention whereby results gathered could be linked to intermediate health outcomes using a prospective cohort design.
- It informs practitioners and policy-makers about the importance of identifying secondary health impacts that could be linked to the introduction of a traffic-calming scheme. In this case, wider health and social impacts such as walking, observed pedestrian activity, parental willingness to allow their children to exercise outside, are considered other than the more traditional concerns around outcomes like a decrease in traffic accidents and injuries.
- The evaluative process undertaken in the study has generalisability value and can be replicated and assessed in any community setting. Physical activity and health promotion practitioners can use the approach to engage in community/environmental level intervention with the aim of gathering data on actual health effects, as well as other potential health impacts (within an empirically and theoretical informed framework). [Note: while the present study did not incorporate a control group in its evaluation, future evaluation of any natural experiments should employ well-designed prospective - with a control group - studies, where appropriate].
- The paper adds to the growing body of knowledge suggestive of the possible link between the environment and health and social impacts. The approach undertaken indicates that environmental conditions that are not considered conducive to positive health can be improved and the impact of the change appropriately monitored and evaluated.