Effective interventions in road transport to improve public health: lessons from active travel projects and programmes

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How do we get our MVPA in Scotland each week?

Fig. 3

Domain-specific mean weekly minutes of moderate and vigorous physical activity (MVPA) and their respective relative contributions to total MVPA of adults in Scotland who met the MVPA guidelines in 2013 (n = 3016), excluding the domain of occupational activity, by age category and sex.

A review of the evidence on the link between active travel for transport and physical activity…
A review of the evidence on the link between active travel for transport and physical activity...

1. What is the potential and actual contribution of active travel to physical activity participation?
A review of the evidence on the link between active travel for transport and physical activity...

2. What interventions are effective in increasing active travel for physical activity?
A review of the evidence on the link between active travel for transport and physical activity...

3. What interventions are cost-effective in increasing active travel for physical activity?
A review of the evidence on the link between active travel for transport and physical activity…

4. What are the characteristics of effective and cost-effective interventions?
A review of the evidence on the link between active travel for transport and physical activity...

5. What types of intervention most benefit different sub-sections of the population?)
Informing decisions.
Shaping policy.

Six settings or typologies identified in the literature…
City and town wide interventions

Building or improving routes or networks

Social marketing including marketing of infrastructure

Workplace and other institution based interventions

Interpersonal interventions

School based interventions
City and town-wide interventions

Workplace and other institution based interventions

Building or improving routes or networks

Interpersonal interventions

Social marketing including marketing of infrastructure

School based interventions
City and town wide interventions: 19

Workplace and other institution based interventions: 4

Building or improving routes or networks: 16

Interpersonal interventions: 7

Social marketing including marketing of infrastructure: 3

School based interventions: 35
ACTIVE TRAVEL WORKS

There is strong and substantial evidence that active travel interventions are effective at increasing walking, cycling and physical activity.

Our review found 61 out of 84 interventions were effective. This includes 36 out of 50 walking interventions, and 41 out of 60 cycling interventions (some covered both). The remainder showed mixed or uncertain results, with a very small number showing decreases.

Evidence is strongest for town or citywide approaches, typically made up of several interventions working together across a whole place.
Example of a citywide approach to cycling

Informing decisions.
Shaping policy.

Transport Research Institute

- Launch publicity campaign
- Promote positive image of cycling/cyclists
- Tackle negative social norms re: cycling
- Launch cycle training/buddying (adults)
- Consider public bike hire scheme
- Launch cycle training (kids)
- Consult with cyclists
- Secure funding
- Appoint dedicated core team
- Build connected network of cycle routes
- Connect existing cycle paths
- Install advanced stop lines
- Consider restricting car access (e.g., city centre)
- Review car parking charges
- Ensure political support
- Town/City levels of cycling
Overall, in the three towns, there was a reduction in total traffic levels in the order of 2%, together with a reduction of 7-10% in the number of car driver trips per resident. Cycling estimated as being a 26-30% increase in cycle trips per head across the three towns taken together - were broadly sustained as was walking at 13-18% increase.
There is an overwhelming case for investing in active travel to support physical activity.

Recommendations:

- Prioritise town/citywide approaches
- Promote active travel *synonymously* with physical activity
- Consistent, long-term funding and cross-government support
- Further research and evaluation
Overall conclusions...

- There is strong evidence for the positive impact of interventions to increase active travel.
- The evidence of the positive impact covers a number of different types of intervention.
- The evidence of the positive impact was strongest for town or city wide interventions.
Prioritise ‘whole system’-type intervention approaches

Identify appropriate combinations of measures that ‘fit’ locally

Encourage local agencies to promote active transport

Enable consistent, long-term funding streams

Enable funding streams that draw on wide-ranging cross-departmental support

Robustly evaluate active travel interventions to grow the evidence base
GAPS: what factors lead to differential extents of impact; which combinations of measures work best; what societal groups respond to active travel interventions; the cost-effectiveness of interventions
### Back to the four research questions

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<tr>
<th>Question</th>
<th>Published Literature Say</th>
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<tbody>
<tr>
<td>1. What is the potential and actual contribution of active travel to physical activity participation?</td>
<td>Narrative based on analysis of existing sources</td>
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<td>2. What interventions are effective in increasing active travel for physical activity?</td>
<td>Comprehensive review of six intervention types</td>
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<tr>
<td>3. What interventions are cost-effective in increasing active travel for physical activity?</td>
<td>Cost effectiveness data quite limited in these studies</td>
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<tr>
<td>4. What are the characteristics of effective and cost-effective interventions?</td>
<td>Limited evidence from studies; systems map for city and town</td>
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<td>(5. What types of intervention most benefit different sub-sections of the population?)</td>
<td>Very little study of different population subgroups</td>
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How is it intended that this review should be used (Sport England, LAs)?

- Demonstrate the clear evidence of the importance of active travel interventions in increasing physical activity
- Identify the types of interventions that can increase levels of active travel which contribute to levels of physical activity
- Inform decisions on active travel interventions by demonstrating the relative strength of evidence for the positive impact of different types of intervention
- Inform planning of structural and funding approaches in support of active travel
Thank you!

- a.davis@napier.ac.uk
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  evidence-review.pdf
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