

Abstract for oral presentation at the ALR Conference 2017

Research abstract

Title

Development of a suite of tools to assess the effects of busy roads on local residents

Authors

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Background and Purpose

Heavily motorised large roads can interfere with individuals' ability to access the goods, services, and people they need for a healthy life ('community severance'). It also reduces the amenity value of streets as active social spaces. Interference with active living affects particularly children, denied freedom to explore and play, and older people, whose slower walking speeds limit their ability to cross roads. Despite this, there is a lack of tools to identify, measure, and study community severance caused by busy roads

Objective

To develop a suite of tools to measure community severance, and validate the tools through triangulation of findings from different data sources.

Methods

The tools include:

- participatory mapping - engaging local residents and community members to provide qualitative data on the locality and their relationship with it;
- spatial analysis - using space syntax and also to develop a sophisticated walkability map; a video survey, to determine pedestrian and motorised traffic flows and pedestrian crossing behaviours;
- street audits to assess the quality of the pedestrian environment;
- a health and neighbourhood mobility survey to collect data from a random sample of local residents on their perceptions of walking around their area and on their health and mental wellbeing; and
- a stated preference survey - to value the effects of community severance.

These were tested in the area around Finchley Road, a busy arterial road in North London.

Results

The study found that despite having a high walking potential, Finchley Road is an unpleasant place for pedestrians due to high traffic levels and the associated air and noise pollution and to the lack and poor quality of pedestrian crossing facilities. This has a negative impact on

the overall mobility and accessibility of local residents and on the quality of their walking trips. There is also evidence of severance having negative impacts on health and wellbeing, although the associations with specific characteristics of roads and motorised traffic are not very strong. The analysis showed coherence between the findings from the different measurement tools applied individually. It also revealed interconnections between factors which contribute to severance.

Conclusions

Coherence of qualitative & quantitative findings supports the validity of the tools. Overall the suite is reliable for assessing community severance in urban areas.

Implications for Practice and Policy

The toolkit will be available online in 2017 for use by local communities, practitioners, and researchers. By providing valuations of the impacts of community severance on the local community, policy-makers and practitioners can prepare business cases for expenditure to reduce severance.

References

www.ucl.ac.uk/street-mobility

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