



How can we make walking safer and more enjoyable for pedestrians?

This study identified barriers and motivators to walking, so that planning could improve and ultimately encourage people to walk more.

The research led to development of a Pedestrian Level of Service Framework for New Zealand. This framework and an accompanying online assessment tool were developed as a starting point for consistent measurement and evaluation of pedestrian level of service in urban areas of New Zealand.

The framework and an accompanying tool will help prioritise investment in projects aimed at encouraging more walking, which in turn contributes to a range of positive social, environmental and economic outcomes.

WHAT THE RESEARCH FOUND

An international and New Zealand literature and practice review found there are many and complicated reasons why people choose to walk or not.

Pedestrian Level of Service (PLOS) is a measure that reflects how pedestrian-friendly a route is. The researchers identified a wide variety of approaches for developing a PLOS framework.

PLOS frameworks in the literature ranged from identifying which factors should be considered through to measuring and rating factors. However, there is little evidence for which approach is best for assessing walking environments based on pedestrian needs.

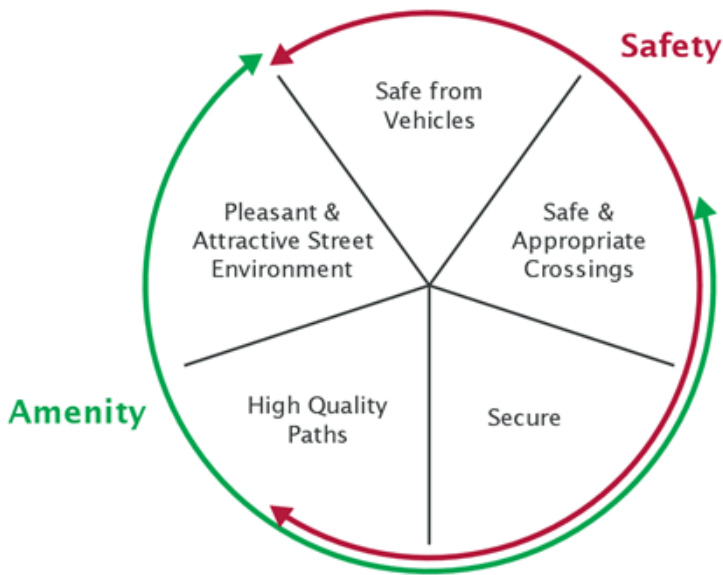
This shows there's room for improvement in the role PLOS frameworks play in influencing related decisions and practices. Very few PLOS frameworks have been implemented on a regular basis in decision making. Developing an insightful and practical method is as important as the underlying technical foundations of the model itself.

WHAT MAKES A GOOD WALK

After their literature review, the researchers identified which environmental factors most significantly affect people's choices about whether to walk, and what made for a positive walking experience. They identified that:

1. safety (physical and perceived) is the highest priority for people walking – feeling unsafe is a significant barrier to walking
2. a pleasant and attractive environment motivates people to walk.

The research also highlighted what contributes most to a positive pedestrian experience and how these priorities change depending on the individual and the environment.



HOW DOES A FRAMEWORK HELP?

The PLOS framework in this study was developed from customer research, guidance and design standards along with practitioner input, testing and feedback. It identifies five outcomes that contribute to PLOS:

- safety from vehicles
- safe and appropriate crossings
- security
- high-quality paths
- a pleasant and attractive street environment.

Each relates to the main considerations of safety and a pleasant environment, which were also identified in the research.

The PLOS results include a variety of score types so that the framework can be used for many applications such as identifying network gaps, comparing design ideas and identifying priority issues in local areas.

An online version of the framework and assessment tool was also developed, making it easier to use.

FURTHER RESEARCH

The literature identified many factors involved in why people choose to walk or not, but they were generally not pedestrian focused or evidence based. Further research is needed to identify which environmental factors most affect people's choice to walk.

The framework was created to help practitioners identify areas for improvement. However, it doesn't say how to make these improvements, and instead broadly measures how a change in the street environment is likely to improve or reduce PLOS.

Further work on the framework could also determine whether it reflects pedestrian ratings for a range of street types and captures their needs and perceptions.

Areas of further research include:

- testing whether the framework aligns with the barriers and motivators of people with disabilities
- validating whether the tool reflects pedestrian volumes
- applying the assessment tool to a range of different street environments around New Zealand, particularly in smaller towns and townships where the tool hasn't been tested.



RR 667 – Developing methodologies for improving customer levels of service for walking, Waka Kotahi NZ Transport Agency research report. Available at www.nzta.govt.nz/resources/research/reports/667