

Planning for walking - the need for better performance measures

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Introduction

Planners will be familiar with the adage 'if you don't count it, it doesn't count'. Another adage goes 'if it looks negligible it will be neglected' and not managed. According to independent transport consultant Rodney Tolley, pedestrians are the indicator species of liveable cities. Yet, walking is too universal, natural and cheap to have been afforded much notice or measurement (Tolley, 2011).

Increasingly, improving walk mode share is a goal in many transport and related plans and strategies. This article examines robust performance measures to monitor progress towards desired outcomes and encourage continuous improvement in planning for walkability.

Measuring performance in planning for walkability

In New Zealand walking is funded and promoted through a raft of plans and policies, including the Government Policy Statement on Land Transport, Regional Land Transport Plans, Long Term Plans and Annual Plans of local authorities, and walking strategies. Appropriate performance measures are needed to ensure the goals of these documents are achieved.

Various sources of potential performance measures are available to planners. The international walking advocacy organisation Walk21 project *Making Walking Count* provides a common practical measuring tool for the collection, analysis and dissemination of quantitative and qualitative information to help define and benchmark walkability; compare results; and monitor the impact and effectiveness of further investment. A number of indicator categories have been identified including:

- walking activity
- local accessibility (distance to local services, green space, sports facilities, cafes, public transport)
- motivations (why people walk)
- barriers (why people don't walk)
- perceptions of the walking environment
- measures to improve the walking environment
- transport spending priorities.

New Zealand along with many other parts of the world is experiencing an ageing population. Walking and walkability are important for an ageing population in maintaining access to services and providing social opportunities. The World Health Organisation (2007) has produced a checklist for age-friendly cities that identify several important elements including pleasant public spaces, seating, well maintained footpaths, safe crossings with adequate cross time, separate from cycling, good lighting etc. These elements are useful to reflect in performance measures.

The new NZTA One Network Road Classification (Note 1) now includes pedestrian services as part of the classification of the road network. As this develops it should allow greater integration and better assessment of transport projects.

The Ministry of Transport's *Transport Monitoring Indicator Framework* (Note 2), a set of transport sector-related indicators, includes the following indicators:

- percentage variability of travel time and average journey times and reliability for key corridors
- access to essential services
- travel perceptions for bus, train, public transport (PT), and car
- mode share of different types of journey (work, school, total trip legs, PT)
- number of crashes in a range of forms

The NZTA requires performance measures for the walking and cycling activity class as part of funding requests and to monitor investment performance (Note 3). The short list of investment performance measures include some of relevance to walking – mode share, access to key destinations by mode, deaths and serious injury by mode, and the ONRC. (Note 4). Currently it is difficult to assess how often these measures are used.

A survey of eight local authority annual plans showed a wide variation in how improvement in walkability is addressed. For example, some include a vision or outcome statement, with increase in walk mode share a fairly common aspiration. Others include walk projects and/or a level of service statement. A number of measures are used - a common one is resident satisfaction with footpaths which typically is derived from the annual surveys of residents. However, this does not provide useful information for improvements.

What would useful performance measures for annual plans look like?

We have briefly set out some performance measures below, easily available to local authorities, intended to facilitate development of a best practice set of walk measures for New Zealand.

1. walking activity and local accessibility

Walking activity is often measured as number or percent of people walking to work or school measured by the Census or Household Travel Survey. This can be extended to include the 'walk legs' of all trips, so for instance we identify the walk to the bus stop. A target for number of walk trips or trips that include walking is useful

Local accessibility can be measured as a simple percent of people living a certain distance to local services, green space, sports facilities, cafes, or public transport. Many councils already use some of these measures and international systems of measuring this are available such as WalkScore. A target for accessibility to local services would be useful, e.g 80% residents within one kilometre of a bus stop, fresh food market, green space and shops.

Planners can use this powerful information to allow for desired developments and ensure that new or intensified residential developments have good services. For

instance if there are no fresh food markets in a densely residential area, a weekly fresh food market might be encouraged to set up, or a change in zoning to allow for supermarkets. Extension of public transport with appropriately sited stops can be provided to allow for local walkability with good connections to the wider community.

2. motivations (why people walk) and perceptions of the walking environment

Regular monitoring of motivations and perceptions of walking are useful to identify the best opportunities to increase walk mode share. This can occur during the annual resident satisfaction surveys with focused questions on walking locally and for work or school trips.

Walkers are very responsive to their environment and will rapidly change behaviour or route if they perceive benefits or barriers to their journey. Planners can use this valuable feedback to tailor promotional activities, often centred around healthy lifestyle and safety. Focused questions will identify areas to target for improvements.

3. barriers (why people don't walk)

There are many ways to measure barriers to walking. Direct methods ask residents if they do walk or why they don't walk.

Indirect methods include the commonly used vehicle versus pedestrian crash statistics, but many others exist that are just as useful. ACC data on non-vehicle accidents in the road environment are useful and account for up to half of the injury to pedestrians on our roads. This data can be used to identify sites of poor design or maintenance issues of pedestrian infrastructure. The number of tickets issued for vehicles on footpaths can be obtained from council databases. Number of physical assaults in public spaces can be obtained from Police data. Together with physical features of the walking environment assessed by technical experts, such as adequacy of lighting (people often feel less safe walking at night), the footpath condition (is the footpath uneven), how long it takes to cross at traffic lights, all represent barriers to walkability. A performance measure to reduce barriers is useful. Care is required however with measures of walk barriers that look like targets; for vehicle versus pedestrian crashes the only sensible target is zero (this is the successful approach used in Sweden – Note 6).

4. measures to improve the walking environment and transport spending priorities.

There are a range of measures that planners can use to address the gaps and opportunities identified in the above measures, from

- walk promotion to show people that walking is an easy and healthy option for them (e.g walking down the hill and bus back up) promoting green

prescriptions, Walk2Work days, and walking school buses. Provision of walk wayfinding which shows destinations and times to walk the distance.

- Allowing for green space and walk connections in new and re-developments with ample room for local services.
- Improving key walk routes by upgrading footpaths and providing a good level of service on crossings to minimise travel time and improve experience. These routes can be identified from pedestrian counts used to measure walk activity.
- To planning for upgrades to infrastructure to meet minimum standards of the NZ Pedestrian Planning and Design Guide

Clearly identifying funding for walking improvements is a readily understood measure but one often lacking. Increase in walking is associated with health and environmental benefits which could usefully be quantified as a measure of value for dollars spent. Similarly a decline in crashes and non-vehicle accidents will save more than just money.

The most successful measures and targets are relevant and robust with easy to access and publicly available data. Most of the data for the above measures can readily be obtained from local authority databases (complaints or contact) or other publicly available sources (ACC data). For other data qualified local authority staff can assess footpath condition against the *NZ Pedestrian Planning and Design Guide* criteria. Many local authorities already undertake resident satisfaction surveys and with more focussed questions this can yield valuable results to target walk improvements, e.g. asking if residents walk in their own neighbourhood gives an indication of how walkable the built environment is. Measurement of short local trips, as well as walk all or part of the trip to work, will be useful to identify how to increase walk mode share, while more expensive monitoring such as SCATS (Note 5) can gain information from signalised crossings.

Successful walkability measures are ones the planning community can use to target improvements to walk mode share, new developments, and pedestrian infrastructure. These measures will be readily understood and desired by the community.

Conclusion

Walking can become a more visible part of the land transport network with the use of robust performance measures. Currently, there are no mandated measures for New Zealand or standardised comparable approaches. Better measures must be used to achieve the health, liveability and transport goals to which walking contributes. The next step is to trial these proposed measures, and refine them to move walking forward.

Notes

1. <http://www.nzta.govt.nz/projects/road-efficiency-group/docs/onrc-performance-measures.pdf>
2. <http://www.transport.govt.nz/ourwork/tmif/>
3. <https://www.pikb.co.nz/home/monitor-investment-performance/nzta-investment-monitoring-overview/benefits-realisation-including-post-implementation-reviews/activities-requiring-performance-measures/>
4. <https://www.pikb.co.nz/assets/Uploads/Documents/Investment-performance-measurement-list-of-measures-June-2014-V5.pdf>
5. SCATS (Sydney Coordinated Adaptive Traffic System) is an area traffic management software package and hardware widely used in Australia and NZ to adjust signal timings in response to variations in traffic demand and system capacity as they occur. See <http://www.scats.com.au/>
6. <http://www.visionzeroinitiative.com/en/Concept/Does-the-vision-zero-work/>

References

New Zealand Transport Agency, 2007, *New Zealand Pedestrian Planning and Design Guide 2007* Available at <http://www.nzta.govt.nz/resources/pedestrian-planning-guide/>

Tolley, R., 2012, *Walking around the world: Walking around the world: innovation and inspiration for delivering best practice for walking*

Paper presented to The Pedestrian Safety Forum, Perth, 11 December 2012 Available at <http://www.ors.wa.gov.au/Documents/Pedestrians/ors-pedestrians-forum-tolley-walking-world.aspx>

World Health Organisation. 2007, *Checklist of essential features of age friendly cities* Available at http://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf