Decision-making on walkability improvements in the context of broader power dynamics

Review of evidence and analysis of case studies in New Zealand and the UK; Summary report

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The project was mentored by Dr Louise Reardon, Associate Professor of Governance and Public Policy at the Institute of Local Government Studies and School Deputy Director of Research at the University of Birmingham, and Dr Michael Buser, Associate Professor of Collaborative Community Practice at the University of the West of England.

A detailed presentation of the findings is presented in two papers (literature review and case studies analysis) being prepared for submission to academic journals.

The report is available under: bit.ly/decision_walkability

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Executive summary

Day-to-day patterns such as mobility need to change, to halt environmental degradation. Leveraging the potentials of walking as a mode of transport requires on the one hand rethinking transport systems to enable and encourage walking, and on the other hand questioning policies, governance processes, and funding streams.

This report presents first a review of academic literature showing limited evidence in terms of processes through which walking environments are improved (and quasi inexistant for decisions focusing on reducing pedestrian inequalities). Second, it presents an overview of results from research undertaken to bridge that gap. Six case studies of successful walking improvements (three in Aotearoa/New Zealand and three in the UK) were analysed, examining what contributed to implementation and to great outcomes, what barriers were encountered, and how the outcomes were monitored.

The analyses show that walkability improvements and their outcomes can be influenced by dimensions of car-centric thinking, policies, and procedures, as well as market interests, non-evidence-based decision-making, or electioneering. Further, potentials are identified for better monitoring interventions outcomes for informing future interventions. Based on the findings, directions are suggested for city-level policy and for research.

Recommendations for policy	Why this matters
Commit to evidence-based decision-making taking a systems approach towards strategic objectives.	Supports consistency, efficiency, and fairness of interventions.
Require and decide based on high-quality evidence for walking, covering experiences, difficulties, and expectations of different demographics.	Sets the focus on users and their diversity, similarly to the concept of UX, key in tech industry. Helps understand the needs and aspirations that should underpin solutions.
Require monitoring processes covering qualitative objectives e.g. inclusiveness or place, captured in a way that is reliable and comparable across projects.	Helps track the realisation of qualitative objectives and build a local knowledge base that can support future interventions.
Adopt and fund targeted action plans to deliver on strategic objectives, e.g. public health.	Explicitly connect strategies with evidence-based implementation.
Co-design with indigenous populations and those who live, work, or play in the area.	Helps craft context-specific solutions and encourages the local populations' ownership of the project.
Develop shared visions or masterplans for the important urban topics (e.g. walking, or green space) and urban areas (e.g. city centre). In other words: first agree on core principles.	Encourages higher level discussion on key topics (e.g. city centre traffic routing), provides agreed principles local projects can build on, and helps ensure functional consistency.
Actively integrate elements of (re)development of complex environments, defining core principles and ensuring their consistent delivery across projects.	Ensures that the decided core principles are delivered by individual projects in a consistent way.

Introduction

The broad benefits of walking are acknowledged and many cities aim for more walking for transport within their transport, climate, liveability, and/or public health strategies. It is however also understood that numerous barriers to walking currently exist, and that they are unevenly distributed across territories and demographic groups. Better walking environments are needed and require better understanding walking experiences, especially the negative ones. But policies, technical processes, and funding decisions still tend to overlook experiences and rely on models and expert views, overlooking the diversity of needs and experiences [1, 2].

While overcoming the challenges for walking is critical in order to meet the Paris Agreement targets, there is a global need for ambition, action plans, dedicated finance, and efficient evaluation frameworks [3]. These should build on a sound understanding of ways in which current practices can reduce or perpetuate inequalities of access affecting demographics including older, younger, or disabled people [4–8]. Evidence from real-world policy-making examples is however poor [9].

In this context, this research aims to:

- **Better understand processes relative to the governance processes of improving walking environments and reducing inequalities across demographic groups; and**
- **Produce policy recommendations to support cities and countries engaging in meaningful change.**

The project includes a systematic literature review of academic publications and an investigation of six case studies of walkability improvements from the UK and New Zealand, that have been flagged as best practice by organisations advocating for pedestrians and marginalised demographic groups.

Figure 1: Cuba Street, Wellington, 1950s and 2016

Methods

The project included two phases:

1. **A systematic review of peer-reviewed literature review** sought to understand how the processes of improving walking environments are understood. This work identified (a) limited evidence on walkability improvement processes, and even more so the processes aimed at reducing walking inequalities; (b) a lack of systematic and evidence-based approaches; (c) and possible gaps and/or adverse consequences, such as "green" gentrification. From 850 identified peer-reviewed articles, only 11 met inclusion criteria. They examined 16 specific walkability-related interventions and the decision-making processes underpinning them. The interventions were based in urban areas in Europe, USA, Latin America, Asia, and South Africa. The interventions were analysed, examining what motivated them, how investments were allocated and prioritised, to what extent inequalities of access were reduced, and how consistent the outcomes were with the strategic intentions.
2. **The analysis of six interventions, three interventions in the UK and three in New Zealand**, was undertaken in the context of lack of evidence identified by the literature review, which sits in a broader context in which "the majority of the literature [on transport policy] is one-step removed from understanding the real-world complexities of policy-making" [9]. The interventions were nominated by organisations representing transport-disadvantaged groups, asked to indicate projects that were beneficial as they improved walkability and reduced inequalities of pedestrian access. For each intervention, available documentation was gathered and interviews were undertaken with stakeholders who had been involved in the decision-making process (as deciders, professionals, or consulted advocates). The interventions, illustrated in the appendix, include:
    - **The transformation of central, commercially oriented New Zealand streets** (Cuba Mall, Wellington; Britomart - Wynyard Quarter link, Auckland; and George Street, Dunedin);
    - **The redesign of an area bordering the city centre** (Valley Gardens, Brighton, UK);
    - **Side-road treatments** for a residential street (Ditchling Road, Brighton, UK); and
    - **A shared path** created on an abandoned railway reservation (Bristol to Bath Railway Path).

Key findings

Key findings from both the literature review and the case studies are presented. We focus on the contributors to interventions being implemented and to high quality outcomes; the barriers to implementation of interventions; and the ways outcomes are measured and how they align with strategic intent. The results are presented first for the five "conventional" interventions, led by local authorities. We then examine the Railway Path, an atypical, grassroots-led project.

Contributors to implementation

The evidence suggests four key ingredients:

Political leadership was a key aspect for implementation, with many variations observed. For instance, Auckland Council had a clear vision, a masterplan, and commitment to make them reality. In Dunedin or in Brighton political leadership was wavering due to respectively reacting to day-to-day changes in public opinion and a volatile political context. When walkability improvements were not part of a strong vision, evidence about pedestrian experience was often overlooked and decision-makers required feasibility-type evidence focusing on traffic flows and parking, with an underlying concern about impeding them.

Support from residents and businesses was important in relation to political leadership. The dynamics were diverse, including lobbying (e.g. Cuba Street retailers calling for a pedestrianisation); collaboration (in Auckland, where engagement and co-design, especially with the Māori tribes, were valued by decision-makers); or commitment (citizens and in particular disability advocates who advocated and worked with council staff towards good outcomes).

Staff commitment was crucial. Beyond the minimal "to do list", staff worked hard to help projects move forward despite wavering political leadership.

Supportive policies and vision documents, like the masterplan in Auckland or (from the literature review) Barcelona's commitment to cleaner air and increased liveability.

Some redesign projects were encouraged or sped up by external elements and/or time pressure such as the need for heavy underground infrastructure works (providing a unique opportunity to rethink the street-level design), an upcoming large scale event (Rugby World Cup for instance, in Auckland), or the availability of central government funding encouraging a local government to act despite a lack of strong vision and conviction.

Contributors to great outcomes

Five best practices were associated with great outcomes. Three were quasi-universal:

Engagement and co-design – understanding users' experiences was instrumental in successful interventions. In Brighton, good engagement was important given that the area of the project had been traffic-dominated for decades, making it difficult for local people to see it as a public space which could have a different look and feel. In New Zealand, engagement and co-design also showcased a movement towards

decolonisation, in which strong collaborations were put in place between the project teams and mana whenua (the traditional custodians of the land). Engagement contributed to greater public support and sense of ownership over the projects.

Commitment to quality was associated with place-specific design responding to a good understanding of users' needs and developing compelling visions for places some of which had been dominated by traffic, as well as high quality implementation, ensuring that accessibility across ages and disabilities and doing justice to the co-design work.

Progressive governance, committed to users' experience and value-led, evidence-based programmes was observed in inspiring examples. In Barcelona, the municipality aimed to reduce traffic-related air pollution it in a fair way, and for that, implement "green axes" within 500m of most homes, engaging extensively with the local populations. The green axes include traffic calming and restriction (for instance, traffic can access certain areas but not traverse them) and context-appropriate redesign, reallocating carriageway space towards walking, cycling, or sojourning and playing. The green environment is enhanced, with more trees and eye-level planting. Where two green axes intersect, a new plaza is created, with relatively low-cost street furniture (typically built locally using wood), floor painting, and plants.

Figure 2: Public space created within the Superblock project; photo Tamara Bozovic

Two best practices are most relevant to central locations:

- **The existence of a pre-established masterplan or vision** can both facilitate decision-making by fostering ahead of the project discussions on elements relevant to a wider territory (e.g., where to route transiting traffic) and help ensure that different local projects work towards an established vision, for instance in terms of multi-modal access.
- **Good coordination** of inter-dependent projects was presented by certain experts as a necessary counterpart of the masterplan, helping ensure that projects that are functionally related progress in a coherent way, delivering consistency where needed (e.g. ensuring that a public transport or pedestrian connection are implemented in a seamless way, across project boundaries).

Barriers to implementation

The interventions faced a range of barriers. These are considered here as they offer insight as to how to overcome them. Three main types of barriers were observed: lack of political leadership, public opposition, and appraisal procedures.

- **Lack of political leadership** was the most frequently mentioned barrier. It encompassed declining support to project due to changes of government, indecision or changes of views, as well as contrarianism. Traffic flows and parking appeared to be key themes in the cases of declining political support. These topics were associated with lengthy debates, requests for evidence aimed at reassuring fears about restricting traffic (interviewees talked about time- and money-intensive extra modelling exercises), as well as, in some cases, selective use of information or outright misinformation. In Dunedin, this even led to personal attacks between members of the Council [10].
- **Public opposition** was noted in Dunedin, Wellington, and to some extent in Auckland. It involved residents and businesses and was also associated with the idea of reducing vehicle flows and the possibility to park nearby. This topic was less prevalent in Auckland, possibly thanks to the work on the masterplan and its principles on access and inner-city movement, underpinned by the impossibility of a traffic-based growth, for the city centre.
- **Process requirements** and their complexity were mentioned in the case of recent interventions. Interestingly, the oldest examined case, Cuba Mall (1967), was decided based on a 32-page study [11] and a half page special order from the Parliament [12] (required for this first pedestrianisation in the country). In contrast, the redesign of George Street in Dunedin is underpinned by a detailed business case [13] and a series of supporting documents totalling over 1,100 pages (not including documents associated with the renewal of water infrastructure). The project documents require considerable time, effort and investment. The participants noted however that few decision-makers read the evidence with care, and the tendency to rule by opinion is observed.
- **Car-centric methods and thinking** were prevalent. Traffic was debated in all the case studies examined, and many participants noted car-centric assessment criteria overlooking walking experience and the quality of walking environments while penalising traffic speed reductions, as well as historic design shaping expectations (“people here drive”) and exceptionalism.

Monitoring progress and gaps

Data on monitoring was available for the most recent three interventions (Auckland, Brighton, and Dunedin) and showed a move towards capturing people's insights, but also possible gaps. Positive aspects noted are the effort made to capture the experiences of the users and/or residents, as well as of the Māori population (Dunedin). The monitoring plans do not however indicate representativeness across demographic groups, which raises the question whether the results will be representative of the populations most at risk of being excluded (disabled, younger, older, LGBTIQ+ people, people on low income, or ethnic minorities) and whether they will identify specific possible difficulties experienced.

The literature review also revealed interactions between walkability improvements and gentrification, which can typically escape the classic evaluation plans and call for a wider lens, including market pressures and housing regulations. Market pressures could also result in private businesses outcompeting public facilities, in upgraded areas (this was the case around Seoul's metro stations).

The gaps are unsurprising in the light of existing evidence, showing an enduring reliance on quantitative data [1] and a tendency to overlook walking experiences and their diversity [4, 14, 15]. It should also be noted that monitoring pedestrian experiences is often not required and there is no general agreement on what protocols to use. In the UK for instance, the quality of the active travel delivered infrastructure delivered and the effects it had are not understood well enough [16]. New Zealand and UK national guidelines also do not require identifying and addressing the accessibility barriers, which is required by the Convention of the Rights of Persons with Disabilities (CRPD) ratified by both countries [17]. The monitoring gaps identified suggest missed opportunities to build an evidence-base that could support future interventions.

One unconventional case - guerilla-style intervention

The Railway Path is an interesting example as it was entirely built by volunteers seeing the abandoned railway line as an ideal place to build a bike path away from traffic – Bristol had none in the 1970s, when the project was initiated. The group used a DIY approach, bending sometimes the rules because "if you were a formal sort of person who worried about doing things properly, then you probably wouldn't make progress", in one advocate's words.

The group lobbied the Councils to buy sections of the former railway for symbolic value and filed simple planning applications providing drawings of the intended infrastructure but no transport studies or supporting data. In some cases, guerilla actions were undertaken, building for instance the path in one weekend, across a section the council had failed to buy and that was going to be turned into a development that would have cut the connection. One of the advocates reported however that the group was unsuccessful in its long-term strategy – building paths, proving these interventions were popular, and through this evidence incentivising the local authorities to build more active travel infrastructure. Despite much effort and success of the paths such as the Railway Path, "we still haven't forced the government to really change its transport strategy".

Directions for policy

Based on the findings, directions are suggested for policy and governance:

- **Commit to evidence-based values-led decision-making**. Opinions not backed by evidence should not underpin decisions. A systems approach should be taken to deliver on strategic objectives e.g. greenhouse gas reduction and multi-generational wellbeing, and prevent undesirable broader outcomes (e.g. take housing-related measures to prevent gentrification)
- **Require and decide based on high-quality baseline evidence for walking and walkability,** covering the experiences, difficulties, and expectations of different demographics. Trials can be helpful to gather quantitative and qualitative insights to inform longer-term action.
- **Require monitoring processes covering qualitative objectives** e.g. inclusiveness or place, captured in a way that is reliable and comparable across projects.
- **Adopt and fund targeted action plans to deliver on strategic objectives**, e.g. commitments under CRPD or public health objectives.
- **Co-design** with indigenous populations and those who live, work, or play in the area.
- **Develop and approve masterplans** before undertaking local transformations. In the words of a participant: “Make sure that plan is one that people like and are familiar with. And have enough funding to do the job properly.” [EAD8]
- **Actively integrate** elements of city centre redevelopment or other complex environments, defining core principles and ensuring they are delivered in a compatible way across projects.

Recommendations for future research

It is recommended future research:

- **Replicates the methodology developed here in other cities and countries**, to better understand the range of best practices and the ways they operate in relation to broader policy and economic contexts.
- **Examines different examples of desirable walkability improvements that were not implemented**, identifying barriers encountered and learnings from attempts to overcome them.
- **Investigates the complex power dynamics** including economic, political, and social pressures, which can shape walkability improvements but also their outcomes, and suggests policy recommendations to minimise negative outcomes such as gentrification.
- **Critically analyse how policies and technical processes deliver on strategic objectives** and commitments, e.g. those under the Convention of the Rights of Persons with Disabilities (CRPD); examine how these translate or not into real-life change for users and identify potentials for more targeted delivery.

Conclusion

This research focused on decision-making associated with improvements of walkability. The results showed that the factors that enable or oppose walkability improvements are much broader than the understanding of what is “walkable” and for whom. Walkability improvements can be influenced by dimensions of car-centric thinking, policies, and procedures, as well as market interests, non-evidence-based decision-making, or electioneering. Further, potentials are identified for better monitoring interventions outcomes for informing future interventions. Based on the findings, directions are suggested for city-level policy and for research.

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Cuba Mall, Wellington

Before

Sidney CharlesSmith, National Library of New Zealand, WikimediaCommons

After

Tamara Bozovic, 2016

Tamara Bozovic, 2017


Tamara Bozovic, 2017

George Street, Dunedin

Before

Postcard, approx. 1919

Google streetview, 2019

After

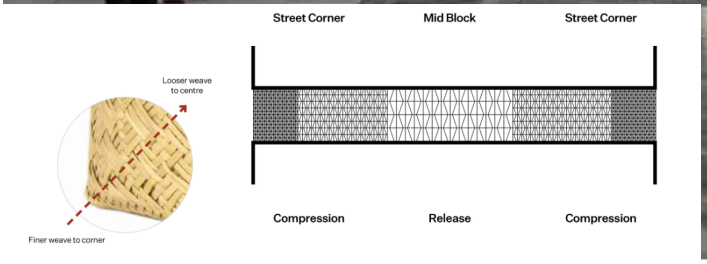


Photo Paula Halyer, 2024; Illustration on the left: excerpt from design concept by Aukaha, www.thefutureofus.nz/totally-georgeous

The patterns used in the layout of the paving are also derived from Ōtākou Marae stained glass patterns, which represent important mahika kai.

What factors contribute to or hinder walkability improvements? Draft summary report, appendix

Railway Path, Bristol

Before

Screenshots from the video Beginning with the Bristol and Bath Railway Path (Excerpts from 'The Bicycle Film') Sustrans, 2015
https://www.youtube.com/watch?v=g9w9zn8Z8AI

After (photos Tamara Bozovic, 2024)

Valley Gardens, Brighton

Before

Google Street View, as of 2009

After

Google Street View, as of 2021


Photo Untitled Practice,
© Brighton & Hove City Council

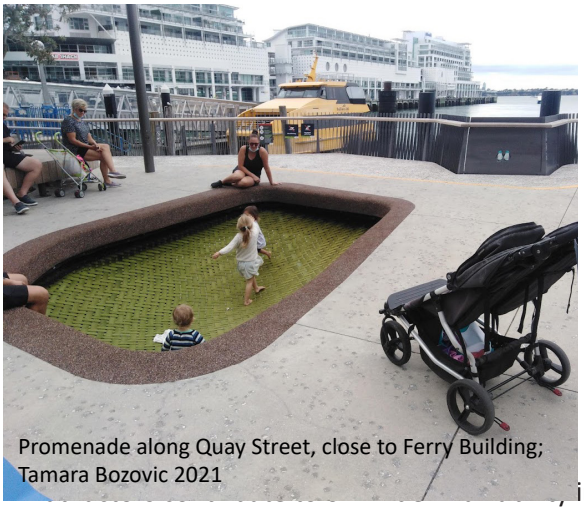
Britomart - Wynyard connection, Auckland

Before

Quay Street and Ferry Building, 1960s; source unknown

After

Quay Street and Ferry Building, 2021, Google streetview



Promenade along Quay Street, close to Ferry Building; Tamara Bozovic 2021

Te Wero bridge (Wynyard Crossing) 2021, Tamara Bozovic

Ditchling Road, Brighton (side road treatments)

No documents were identified for this intervention, and no “before” photos. The previous geometry was commented on by one of the participants and traces of it are still visible on the ground.