STREETS FOR THE FUTURE
BUT LETS GET THEM NOW!
Outcomes and lessons from
Te Ara Mua – Future Streets

Hamish Mackie, Alex Macmillan, Karen Witten,
Alistair Woodward, Melody Smith, Adrian Field, Jamie
Hosking, Kimiora, Lily Hirsch, Bert van der Werf,
PROJECT PARTNERS

TERNZ Transport Research
Mackie Research
Ministry of Business, Innovation & Employment
The University of Auckland - Faculty of Medical and Health Sciences
Safer Journeys Signature Programme
Auckland Council - Māngere-Ōtāhuhu Local Board
Auckland University of Technology
University of Otago
SHORE
Boffa Miskell
designTRIBE Architects
WE MUST DO THINGS DIFFERENTLY

- Road Safety
- Public health
- Social and economic equity
- Climate change
The Future of the Body

Our faith, interest and investment in the body as a transport technology

A technology being left to rust

The body as ‘anachronism’:

‘Parcel to be moved’

‘Pet to be walked’

(Solnit)
Demonstration of ‘healthier’ neighbourhood streets


Controlled intervention study to understand outcomes

THE DEMONSTRATION PROJECT
BEFORE AND AFTER

Local Roads

Collector Roads
Making streets around Māngere Central safer and easier to travel around, especially by walking and cycling; and reflecting local identity.
DESIGN PRINCIPLES

1. Give greater priority to pedestrians and cyclists
2. People feel safe on routes
3. Reduce traffic speed and make it more consistent
4. Improve peoples ability to cross the road safely
5. Schools and the Mall are priority destinations for the walking and cycling network
6. Separated cycling on busier roads
7. Improvements reflect the identity of Māngere people
<table>
<thead>
<tr>
<th>Mana whenua</th>
<th>Walking</th>
<th>Cycling</th>
<th>Calmer cars</th>
<th>Improved amenities</th>
</tr>
</thead>
</table>

Walking, Cycling, Calmer cars, Improved amenities.
Walking
Cycling
Calmer cars
Improved amenities
Mana whenua
Walking
Cycling
Calmer cars
Improved amenities
<table>
<thead>
<tr>
<th>Mana whenua</th>
<th>Walking</th>
<th>Cycling</th>
<th>Calmer cars</th>
<th>Improved amenities</th>
</tr>
</thead>
</table>

[Image of a cityscape with various roads and buildings, indicating a future streets planning.]
THE STUDY
Intervention and control areas
Pathway to improved health & wellbeing

Safety for walking & cycling → Improved perceptions → Increased active modes → Reduced congestion → Increased physical activity → Improved health and wellbeing

2017 2018 2019 2020
Data collection 2

Baseline
- Door-to-door survey
- Video
- Audit
- Air quality

Early follow up
- Door-to-door survey
- Video
- Traffic
- Counts
- Speeds
- Crashes

Longer-term follow up
- Door-to-door survey
- Video
- Audit
- Air quality
- HbA1C
- Quala
- Counts
- Speeds
- Crashes

Data collection timeline:
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
MANA WHENUA DESIGN OUTCOMES

- Positive experiences of mana whenua engagement and the design outcomes
- Street design contributes to indigenous wellbeing strategies – by reaffirming, reasserting and recognising the first peoples of urban communities
- Advanced mana whenua leadership in street design – but further evolvement required
Changes in mean speeds by road type: 2014 to 2017

~10km/hr reduction in local streets
Mean speeds on local streets: 2014, 2017, 2018

Local
Intervention

Local
Control

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>
Speed changes Baseline 2014 vs Post 2017

Control

Intervention

Intervention area no changes

Change in 85th percentile speed km/h

Speed measurement site

108 Tennessee ave
31 Tennessee ave
Vine St
Wickman way
Buckland road
11 Yates road
33 Yates road
Massey road
Friesian drive
Mascot near Baker
Imrie
Mascot at Nga iwi School
Mascot at Friesian
Bader near Orly
Bader near Ashgrove
Ashgrove rd
Traffic volume
CHANGES TO CROSSING MOVEMENTS AND INTERACTIONS
CHANGES TO CROSSING MOVEMENTS AND INTERACTIONS

Pedestrian-vehicle interactions, Site A
MORE HOMOGENOUS CROSSING BEHAVIOUR

2014

2018
Changes to crossing movements and interactions

EASIER CROSSING – ALL CROSSINGS

Crossing movements now more continuous. Pre-intervention, 51% peds had to wait in the middle of the road. Post-intervention = 3%

<table>
<thead>
<tr>
<th>Crossing delay</th>
<th>2014</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3 seconds</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Between 3 and 10 seconds</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>More than 10 seconds</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Proportion of people crossing
BENEFITS FOR WHEELED MOVEMENT

3.4% of pedestrians crossing Mascot Ave used wheeled devices at follow-up compared to 1.2% at baseline.

The presence of prams, scooters, and skateboards has increased.
Could you please tell me if you have any difficulty going outside and getting about using a wheelchair if you have one?

“Could you please tell me if you have any difficulty going outside and getting about using a wheelchair if you have one?”
“...I used to push from home to here [gym by the mall] every day and some of the roads were really bumpy, unsafe and even because you have done lots of good changes I feel independent and safe within myself – in my manual chair or in my power chair. All the local places I feel comfortable and it is freedom for me, so I don’t have a bodyguard [someone to push her].”

36 year old woman with mobility impairment
PERCEPTIONS OF COMMUNITY SAFETY

- Good place to raise kids
- Worry about crimes
- Graffiti & vandalism
- Roaming dogs
- Safe places to play
- Safe walking after dark
- Bullying
PERCEPTIONS OF COMMUNITY COHESION

- People are willing to help
- Neighbours watch out for kids
- Close knit neighbourhood
- Could borrow from a neighbour
- People of different backgrounds don’t talk
- Strangers say hello

Graph showing the change from 2014 to 2017, with Intervention and Control groups.
Resident perceptions

Looks good, appreciate investment
Walking a lot easier
Mixed views of cycling and cycle lanes
Some frustrated by impediments to traffic/parking
More needed activation, personal safety
Not everyone felt engaged
EARLY CRASH PERFORMANCE

Thomas/Orly, Mascot, Fresian, Imrie:
30 crashes 2 years before
15 crashes 2 years after

No deaths or serious injuries where Future Streets changes made

Similar trend to wider Auckland
Making streets around Māngere Central safer and easier to travel around, especially by walking and cycling; and reflecting local identity
The ‘System’
Sociotechnical systems and niche Innovations

Adapted from (Geels, 2012)
Fostering niche Innovations

Why are niche projects needed?
• We are struggling to up the pace of mode shift
• We need to trial ideas that will challenge the wider regime and drive system change
• Support change efforts from within the regime – novel coalitions – non BAU

What do niche projects need to succeed?
• Advocacy and leadership - from community, policy, delivery and research
• Structural modifications
• A well resourced and dedicated innovation programme and fund that fall outside locked-in investment schedules
INNOVATING STREETS FOR PEOPLE
WE MUST DO THINGS DIFFERENTLY

Time

Change

- Road Safety
- Public health
- Social and economic equity
- Climate change

Needed

Current
KEY LESSONS SO FAR...

• We are on the pathway to change
• More to do – network, personal safety, activation
• Need to focus on the Socio-technical system
• Need a programme for innovation, demonstration, niche projects

WWW.FUTURESTREETS.ORG.NZ
LESSONS FOR TE ARA MUA2

• MOVE FAST!
• Optimise street design and speed limits
  • A clear functional street hierarchy
  • Restrict access
  • Tactical changes
  • Std safety treatment overlay
  • Lever maintenance
• Smart engagement
• Invest based on people’s experiences (infrastructure, personal safety, education gaps)

WWW.FUTURESTREETS.ORG.NZ
THANK YOU