

New South Wales Health Promotion Demonstration Research Grants Scheme

SAFER STREETSCAPES FOR OLDER PEOPLE



A QUALITATIVE FALLS RESEARCH PROJECT
IN WELLINGTON, NEW SOUTH WALES

Produced by:
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The authors wish to express their appreciation to the residents of Wellington, New South Wales, who shared their experiences and comments with the Safer Streetscapes for Older People researchers. Without this rich tapestry of information researchers would not have the insight into the experiences of older people using the street environment detailed in this report.

Our thanks are also extended to the Safer Streetscapes for Older People Advisory Committee for giving their time, thoughts and guidance during this project. Finally, this project would not have gone ahead without the financial assistance of the New South Wales Health Promotion Demonstration Research Grants Scheme.

EXECUTIVE SUMMARY

Context

Australia's aged population will increase significantly by 2051. Unless preventive measures are put in place there will be a corresponding increase in the number of falls resulting in injuries in the community over the coming decades.¹ Each year one in 3 people aged 65 years and over will fall, some more than once. Falls can result in serious injury, loss of confidence, fear of falling again, loss of mobility, loss of independence, and social isolation.² The streetscape environment has been identified as an extrinsic risk factor that can contribute to an older person sustaining a fall.³

The Safer Streetscapes for Older People Project assessed comments from older people about the streetscape environment and compared this to current Australian Standards to assess suitability of current standards to the identified needs of older people. Current standards do reflect a streetscape environment that is appropriate for older people; however, one of the challenges for all councils is upgrading existing streetscapes to meet new standards. This is a major issue for all councils, particularly those that have a shrinking ratepayer base due to population decline. Capital works of this nature are extremely expensive and as a result the streetscape environment is below current Australian Standards. This environment is likely to contribute to fall-related injury, or fear of fall-related injury, in older people.

Aim and objectives

The aim of the project was to conduct focus groups and in-depth interviews with older people (55 years and over) in the Wellington Census Collection District (CCD) with the highest proportion of older people to identify the main pedestrian routes and older people's perception of environmental hazards on these routes.

The objectives of the project were to:

- use Mapinfo and Census data to identify which CCD in the Wellington Local Government Area had the highest proportion of people aged 55–70 years;
- map main pedestrian routes for the CCD and generate a list of recommendations based on the hazards identified;
- prioritise actions for capital work to address shortfalls that can reasonably be achieved over the next two financial years;
- incorporate work requiring action in the Wellington Shire Council Management Plans (and Strategic Plans where appropriate);
- review planning guidelines in light of the recommendations identified by older people to check for consistency with planning standards;
- assess the acceptability and strength of this process to the parties involved—that is, older people, health agencies, health staff, and Wellington Shire Council—to determine the workability of the system for possible future adoption.

Study design

Using qualitative methods, including semi-structured interviews and focus groups, researchers asked members of the target group to describe their experiences using the streetscape in the study area. The researchers also identified common pedestrian routes used by older people. The information provided by the target group through face-to-face interviews was enriched by information from focus groups with other older people living in Wellington who resided outside the study area.

Throughout the project, researchers employed New South Wales Health's Capacity Building Indicators in an effort to determine both the strength of coalition with other sectors represented on the Advisory Committee and the sustainability of the project beyond the project time frame.

Research findings

The major findings include identification of:

- the reasons why older people walk in the study area;
- a need for new concrete path construction in the study area;
- a need for concrete footpath maintenance in the study area;
- a lack of adequate seating on pedestrian routes in the study area;
- a perception that pedestrian crossings in the main street (Nanima Crescent) are dangerous for pedestrians;
- the hazards of high kerbing in Nanima Crescent;
- the hazards of people riding bikes and skateboards recklessly along Nanima Crescent;
- the fear of unrestrained and/or unsupervised dogs.

Recommendations and actions

The information gathered was prioritised and compiled into a report by researchers in collaboration with the staff of Wellington Shire Council. The report contained a list of 7 recommendations for action, which was presented to councillors and staff at a council meeting. All recommendations had the potential to be addressed by the council over the financial years between 2002 and 2008 (the council's strategic planning cycle). The recommendations were included in the Wellington Shire Council's 2003–2008 Strategic Corporate Management Plan.

Other actions were also initiated as a result of the research. Standards Australia advised that a ramp, identified by older people as being too steep, met the Australian Planning Standards when it was built but these standards have since been superseded. Problems of roaming dogs, people riding skateboards and bikes, and an unsafe pedestrian crossing, were also brought to the attention of the council. Signs were erected warning motorists of the presence of the pedestrian crossing, and signs highlighting bans on bike riding on the footpaths were erected in the main street. Speed limits in the area were introduced as part of a statewide initiative.

At the completion of the Safer Streetscapes Project in May 2004 an audit was conducted of the study area by researchers and council staff to determine which of the 7 recommendations adopted by the council had been acted upon. It was found that 3 of the 7 recommendations had been acted on at the time the audit was conducted.

The capacity building indicators used to assess the strength of the coalitions formed for the project indicated that the project partners had worked well together for a common purpose. There were some concerns among the project partners about the likely sustainability of the intervention given that many of the recommendations would require significant expenditure by the council.

Conclusion

The qualitative methods used in this project obtained valuable information from older people that could be articulated to community policy and decision makers by researchers as a means of advocating for changes to the streetscape. This process can be replicated with other community groups who have views about their local streetscape but who traditionally do not have a voice to express those views.

The Safer Streetscapes for Older People project used a combination of environmental, advocacy and educative strategies to improve the safety of the streetscapes in the study area. Wellington Shire Council responded well to the recommendations of the project by incorporating all 7 recommendations from the research into its management plan.

Despite the extensive research into the target group's needs, and the development of a rationale for incremental changes to the streetscape in the study area, outcomes have been limited by fiscal and political forces. Continued advocacy is required to ensure that by the completion of the Wellington Shire Council's planning cycle in 2008 progress is made on the remaining 4 recommendations.

BACKGROUND

The implications of falls in an ageing population

Falls are costly to individuals and the community. In Australia, falls are the major cause of injury-related death in people aged over 65 years, accounting for 40 per cent of all injury-related deaths.^{1,2} Annually, it is estimated falls cost the Australian community \$2,369 million, account for 4 per cent of hospital separations, and account for 69 per cent of all trauma-related hospital admissions for people aged 65 years and over.^{2,4}

If prevention strategies are not put into place it is estimated that the burden of treating falls in older people will result in a large increase in health expenditure (Table 1),¹ making it even more difficult to allocate funding to prevention programs. The Commonwealth Department of Health and Aged Care predicts that by 2051 fall-related injuries will:

- cost the health care system \$1,375 million, which is 3 times what they cost in 2001;
- generate 1,408,600 hospital bed-days per annum, compared to 513,300 bed days in 2001;
- require 515,000 nursing home places, compared to 183,000 in 2001.¹

Table 1
Projected health care costs due to fall-related injury, Australia, 2001–2051

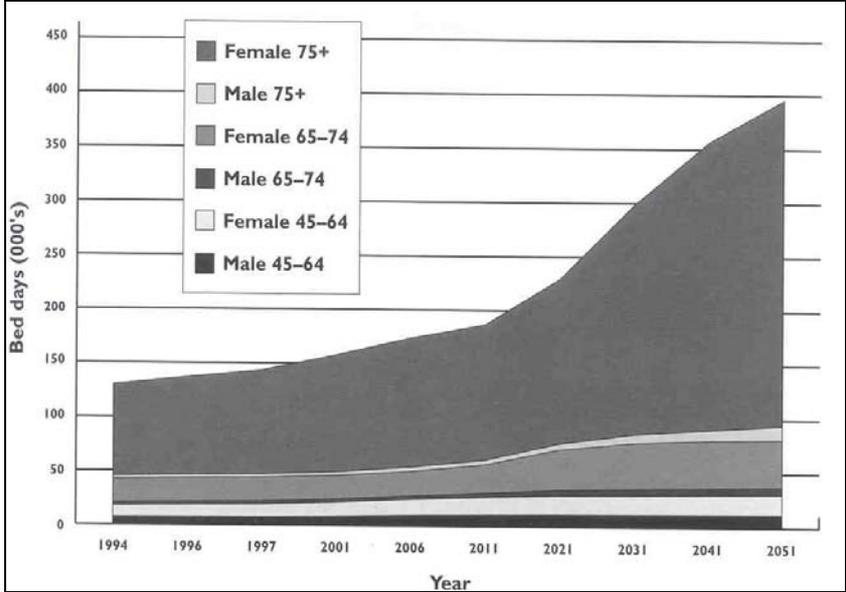
Costs (\$millions)	2001	2011	2021	2031	2041	2051	Ratio 2051:2001
Public hospital inpatient	211.9	256.2	332.6	453.1	544.2	591.6	2.79
Private hospital inpatient	50.1	60.1	77.2	106.2	128.7	140.3	2.80
Non inpatient	55.5	68.4	92.3	119.3	137.3	146.6	2.64
Total Hospital	317.6	384.9	502.3	678.8	810.4	878.7	2.77
Nursing homes	92.2	111.0	142.5	196.8	239.1	261.4	2.84
GP	20.4	24.8	32.8	43.2	50.6	54.4	2.66
Specialist	15.6	19.1	25.7	32.7	37.4	39.6	2.54
Total Medical	36.0	43.9	58.5	75.9	88.0	94.0	2.61
Prescription	7.8	9.5	12.8	16.3	18.6	19.8	2.55
Over the counter	2.1	2.5	3.4	4.4	5.0	5.3	2.54
Total pharmaceutical	9.8	12.0	16.2	20.7	23.6	25.0	2.55
Allied health	18.9	23.4	31.8	41.3	47.5	50.7	2.68
Other	24.0	29.1	38.0	51.3	61.1	66.3	2.76
Total Costs	498.2	603.9	788.7	1063.9	1268.7	1375.0	2.76
Utilisation 000s	2001	2011	2021	2031	2041	2051	
Public hospital separations	32.5	38.7	50.0	67.4	80.7	87.4	2.69
Private hospital separations	7.2	8.5	11.0	14.9	17.9	19.4	2.71
Total hospital separations	39.5	47.1	60.8	82.1	98.4	106.6	2.70
Public hospital bed days	384.5	457.1	584.9	798.8	966.0	1051.0	2.73
Private hospital bed days	129.0	152.5	192.8	267.5	327.5	358.1	2.78
Total hospital bed days	513.3	609.4	777.5	1066.0	1293.1	1408.6	2.74
Non inpatient Occasions of service	543.8	659.0	884.7	1127.6	1289.3	1366.5	2.51
GP	583.8	701.1	924.2	1207.8	1411.1	1510.4	2.59
Specialist	239.3	288.8	386.8	493.3	564.8	598.4	2.50
Total medical	823.2	990.1	1311.1	1701.4	1976.2	2109.2	2.56
No of prescriptions	387.8	467.8	623.1	800.9	923.3	982.1	2.53
Allied health consults	698.6	851.1	1162.6	1449.1	1622.8	1700.8	2.43
Nursing home residents	1.83	2.15	2.70	3.79	4.69	5.15	2.82

Source: Commonwealth Department of Health and Ageing, *Projected costs of fall related injury to older persons due to demographic change in Australia, 2003*.¹

In New South Wales, no other single cause of injury, including road trauma, costs the health system more than falls, and fall-related injury cost estimates have been put at \$324.2 million annually.² It is estimated these costs could double in the next 50 years as the population ages.² Further, it is estimated that at least 40 per cent of people aged 65 years and over who are hospitalised as a result of a fall require discharge to a nursing home, and a further 10 per cent require home services.³ By the year 2051, it is estimated that fall-related injury could cost the state health system \$644.7 million per annum, which equates to 4 new 200 bed acute care facilities and 1,200 new nursing home places.²

Figure 1 highlights the importance of sustainable preventative action in the period prior to 2020 when it predicted there will be a significant increase in fall related injury coinciding with a significant increase in the aged population. If preventative action is not taken it is estimated that there will be a significant increase in the projected number of hospital bed days generated by fall related injury.³

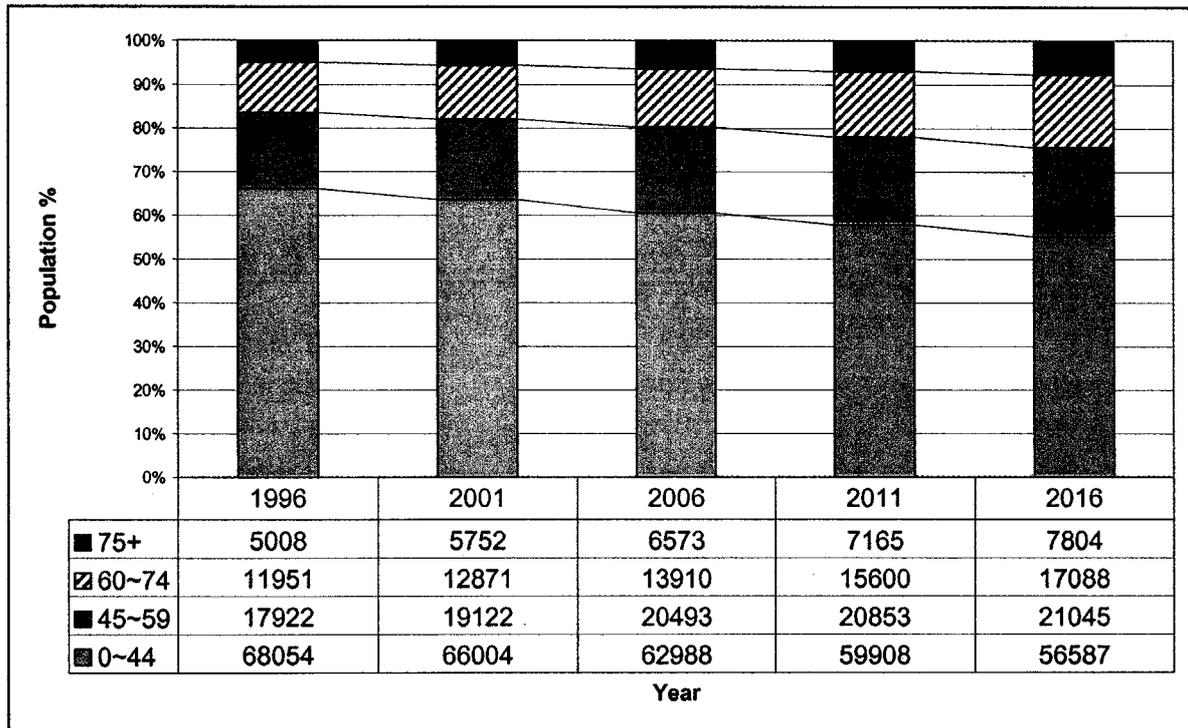
Figure 1
Fall-related injury to 2051, projected trends in public hospital bed days by age group and gender, ABS Series 1 population projections, New South Wales



Source: NSW Department of Health, *Preventing injuries from falls in older people*, 2001.³

Based on ABS data by 2016 there will be a slight decrease in the general population in the former Macquarie Area Health Service (now within the Greater Western Area Health Service). However, the number of people in the 60–74 age year bracket will increase by 43 per cent by 2016 and those people aged 75 years and over will increase by 55.8 per cent (Figure 2).⁵ Given the projected increase in the number of older residents in the Macquarie area, it is estimated that fall-related health care costs will increase from \$4.851 million in 1996 to \$5.905 million by 2016, an increase of 21.7 per cent.⁵

Figure 2
Population trends for the former Macquarie Area Health Service



Source: Rural Falls Injury Prevention Program, *Area Health Service Planning Profile—Fall Safe Activities for Older People*, Hunter Centre for Health Advancement, 2002.⁵

By 2016, Dubbo, Mudgee and Wellington Statistical Local Areas will have the largest proportion of people aged 60 years and over residing in the localities in the former Macquarie Health Area. As a result, it is predicted these 3 centres will experience an increase in fall injuries of 22 per cent by 2016.⁵

Fall outcomes

A fall can result in serious injury or a reduction in activities of daily living. Older people who have experienced a fall will often lose self-confidence, reduce their level of physical activity, and have a fear of falling again. All of these factors can increase their risk of falling again. After sustaining a fall, older people are often more reliant on carers, whether they be nursing home carers, home service carers, family or friends. Only half of older people hospitalised for a fall are able to return to home, with many requiring long-term care.⁵

Why older people fall

Most falls result from a complex interplay of multiple risk factors. These risk factors can be intrinsic (personal) or extrinsic (environmental), which together or in isolation can cause older people to fall. Intrinsic factors include age, a previous history of falling, co-morbidity, loss of mineral bone density, use of psychotropic and/or multiple medications, impaired mobility and/or balance, and reduced physical activity. External factors are mostly 'slip and trip' hazards such as uneven surfaces, garden hoses, and tree roots.³

Preventing falls in the public domain

The development of pedestrian-friendly public places plays an important role in keeping older people active and living independently in the community, and in preventing falls. Factors such as the provision of seating on pedestrian routes, well maintained footpaths, easy to navigate pedestrian crossings, adequate lighting, and good street signage, encourage older people to remain physically active as part of their daily life, thus reduce their risk of sustaining a fall injury.⁶

Local governments have a vested interest in making streetscapes safe for people of all ages. User-friendly streetscapes can promote social connectedness, encourage people of all ages to remain physically active, promote a sense of pride in the community, and make the community an attractive place for people to reside in. As the proportion of older people in our population continues to grow, older people will place increasing demands on the environments in which they live. It is important to plan streetscapes with this in mind.⁶

Falls prevention in public places primarily focuses on the management of ‘slip and trip’ hazards, removal of sharp edges, improved lighting, and providing perceptual clues to edges.⁶ Success in creating safer streetscapes can only be achieved through collaboration between a number of agencies and in consultation with people of all ages.⁶ Falls have potentially significant implications for local government in terms of insurance premiums and claims. At the outset of the Safer Streetscapes for Older People project, information provided by the Wellington Shire Council indicated that on average the council received 3 to 4 fall related insurance claims per year.⁷ With the former Macquarie Health Area population projections predicting a significant increase in the number of older people living in Wellington by 2016, it is expected the number of fall-related insurance claims received by the council will increase.

In May 2004, Wellington Shire Council staff were interviewed about falls sustained in the Wellington streetscape. In 2001, Wellington Shire, along with many other councils in New South Wales, implemented a risk management system that saw a significant drop in the reported number of streetscape falls. In the period since the system was introduced (2002–2003) one fall had been reported to council compared to the 2 years prior (2000–2001) when 6 falls were reported.⁸ The risk management system, which was supported by the council’s insurer, requires council staff to assess a slip–trip–fall hazard and assign a priority that determines the timeframe in which the hazard is to be rectified. As part of this strategy, council purchased a footpath grinding machine, which allows footpaths to be easily ground, and as a result many slip–trip–fall hazards have been eliminated. Between 1995 and May 2004 the council’s insurer had paid out a total \$28,156 in compensation for fall-related insurance claims.⁸

Older people are invaluable sources of information when identifying streetscape hazards and planning public priorities for streetscape development. While it would be preferable to address all fall hazards found in public places immediately, it is important to recognise this is not often viable due to the cost of capital works. It is important hazards are addressed in order of their assigned risk priority.

AIMS AND OBJECTIVES

Aim and objectives

The aim of the project was to conduct focus groups and in-depth interviews with older people (55 years and over) in the Wellington CCD with the highest proportion of older people to identify the main pedestrian routes and older people’s perception of environmental hazards on these routes. The objectives of the project were to:

- use Mapinfo and Census data to identify which CCD in the Wellington Local Government Area had the highest proportion of people aged 55–70 years;
- map main pedestrian routes for the CCD and generate a list of recommendations based on the hazards identified;
- prioritise actions for capital work to address shortfalls that can reasonably be achieved over the next two financial years;
- incorporate work requiring action in the Wellington Shire Council Management Plans (and Strategic Plans where appropriate);
- review planning guidelines in light of the recommendations identified by older people to check for consistency with planning standards;
- assess the acceptability and strength of this process to the parties involved—that is, older people, health agencies, health staff, and Wellington Shire Council—to determine the workability of the system for possible future adoption.

METHODS

The study area: Census Collection District 306

The project study area and target group was defined by 1996 Census data. The Census Collection District within the Wellington statistical local area with the highest proportion of people aged 55 years and over was CCD 306. This formed the study area.⁹ The streets, lanes, and crescents that comprise CCD 306 include: Gobolion Street (west of Lee Street), Lee Street (south of Gobolion Street), Raymond Street, Whiteley Street (west of Lee Street), Ford Street, Gisborne Street (west of Lee Street), Warne Street (west of Lee Street) Soldiers Lane, Gisborne Lane, Brewery Lane, and Nanima Crescent (the main street of Wellington (Figures 3 and 4).

Figure 3
Census Collection District 306, Wellington, New South Wales

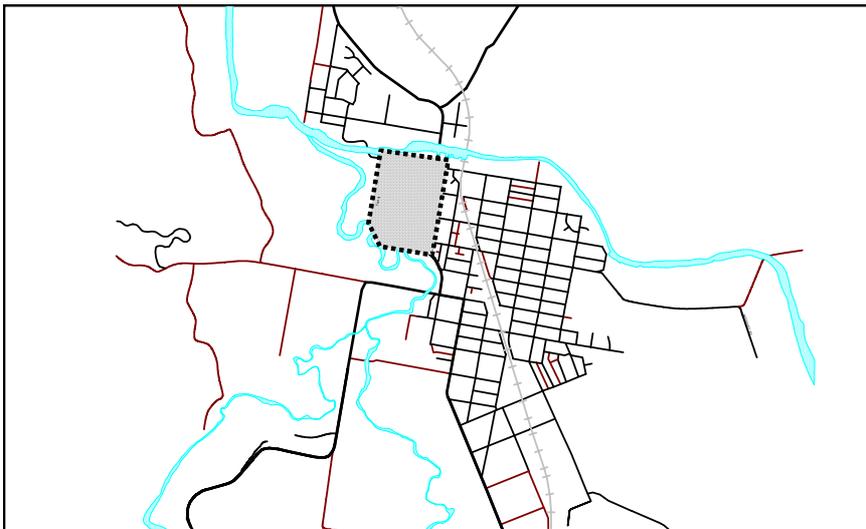
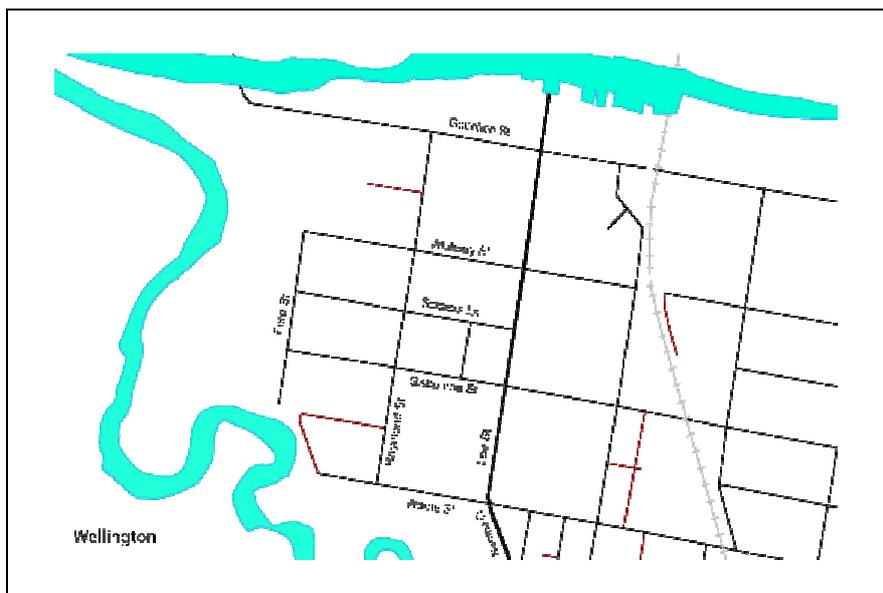


Figure 4
Inset of Census Collection District 306, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

Recruitment of research participants

In 2001, according to Australian Bureau of Statistic data, CCD 306 consisted of 469 residents, 170 (36.2 per cent) of whom were over the age of 55 (76 males and 94 females). The target group consisted of residents of CCD 306 who were over the age of 55 years, as these were considered the residents most at risk of sustaining a fall-related injury over the next decade.

Every resident in the study area was provided with information about the Safer Streetscapes for Older People project via a letterbox drop. Following this, the researchers knocked on every door in the study area and invited people over the age of 55 to participate in the project. For those residences where no one was home, a pamphlet was left encouraging eligible occupants to contact the researchers if they were interested in participating in the research. Those who indicated they were interested were interviewed on a day and time that was convenient for the interviewee.

The letterbox drop coincided with a series of media releases designed to help secure participants. These media releases reiterated the information delivered via the letterbox; however, more emphasis was placed in the media releases on the potential benefits of a safer streetscape for older people.

As the study area included the central business district of Wellington, researchers used focus groups to collect information from older people residing outside the area. Their rationale for this was that although this group of older people did not reside in the study area they could contribute valuable information about the area and its streetscape as many frequented the study area (including the main street) as part of their everyday activities. Focus group participants were members of the 'Hooter Scooters', which is a support network for 'gopher' drivers in Wellington. Consent was obtained from participants prior to their being involved in either an interview or focus group.

Ethics approval for the project was obtained from the Western New South Wales Human Research Ethics Committee, Macquarie and Far West Area Health Service.

Data collection

Semi-structured interviews

The employment of semi-structured interviews allowed researchers to explore identified topics of interest by asking open-ended questions. Where deemed relevant, the researchers explored additional topics identified by the interviewee. Interviews were conducted until saturation was reached. That is, until the process of interviewing failed to yield new insights into the research topic.

A map of the study area was taken to each interview during which respondents were asked to identify where they walk in the study area. This allowed the researchers to identify common pedestrian routes. The interviews occasionally involved two participants. This occurred if a respondent requested that either their partner or their friend attend the interview with them.

Interview Schedule

The interview schedule was initially informed by a preliminary unstructured interview with an older Wellington citizen who didn't reside in the study area. However, as previously mentioned, the schedule evolved over the course of the research as subsequent participants identified issues considered by the researchers to be worthy of further investigation. A copy of the interview schedule that was used during initial interviews can be found in the appendices.

Focus groups

Researchers also gathered information from people who were not members of the target group but were deemed capable of adding to the body of knowledge about the research topic. An article was placed in the local newspaper asking this group to participate in one of 3 focus groups:

- residents with mobility issues (inclusive of scooter drivers, those confined to wheel chairs, and those who use a wheelie walker);
- residents interested in participating in the research but didn't reside in the study area;
- residents who were vision and hearing impaired.

There was no response to the newspaper article. One of the researchers, Wellington's community nurse, approached members of the target group and asked them to participate in the first 2 focus groups. Eleven people agreed to participate in one of the 2 focus groups conducted. No one was interested in participating in the third focus group (for residents who were vision and hearing impaired).

The schedule of questions used to guide discussion in the first focus group was informed by anecdotal evidence about the streetscape that people with mobility issues consider to be hazardous. This anecdotal evidence was obtained from staff of the Wellington Health Service who had frequent contact with the 'Hooter Scooters', a support network for 'gopher' drivers in Wellington. The schedule used to guide discussion in the second focus group was informed by data obtained from preceding face-to-face interviews. A copy of the focus group questions, prompts and probes can be found in the appendices.

Data analysis

The semi-structured interviews and focus groups conducted were audio taped and transcribed to allow for analysis. 'Grounded theory methodology' underpinned the analysis of the data as well as its collection. This methodology requires that data be coded or grouped into categories and sub-categories that allow themes to emerge from the data. Open coding allowed the researchers to familiarise themselves with the data. Coding was conducted manually by the researchers.

RESULTS

Participation

Approximately 20 per cent of the target group participated in the research, with 37 older people sharing their views and opinions with the Safer Streetscapes for Older People researchers. Of the 37 research participants, 26 were involved in a semi-structured interviews. The remaining 11 participants were involved in one of two focus groups which were conducted. The average age of respondents was 76 years of age.

Why older people walk

Researchers sought to determine why older people choose to walk as opposed to using other modes of transport. The research participants provided a number of explanations for why they walk.

Interaction

Some participants indicated that walking allowed them to interact with their neighbours on a regular basis: that walking constituted a means for social interaction.

Exercise

Some of the participants indicated that they walk in order to gain some exercise; that they used this form of physical activity to help manage chronic conditions such as high blood pressure.

Transport

According to the research, some older people walk in order to get from A to B.

Enjoyment

Some participants indicated that the reason they walk is enjoyment.

What deters older people from walking

As physical activity is one means of older people reducing their risk of sustaining a fall researchers sought to determine what the deterrents were to older people walking. The research revealed a number of issues that deter older people from walking as regularly as they would like.

Dogs

Participants indicated that they are scared of dogs and that unrestrained and unsupervised dogs are common in the study area. One participant who was afraid of dogs indicated that she carries a stick to protect herself while walking. Participants mentioned that they feared for their personal safety when confronted by a dog and that they avoid certain areas if they think that a dog might be 'lurking' there.

Figure 5
Unrestrained dog in central business district, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

People

Participants indicated that they are reluctant to walk at night because they are concerned for their personal safety, that certain ‘undesirables’ deter them from walking at night.

Bikes and skateboards etcetera

Older people identified that they feel vulnerable when people ride bikes ‘recklessly’ in the main street of Wellington. Some of the participants mentioned that they associate people riding bikes and skateboards etcetera ‘recklessly’ in the main street with a fear of falling or being knocked over.

When asked about the bike lane in the main street, participants expressed frustration, indicating that this bike lane is not adequately utilised.

What contributes to older people not walking

Researchers sought to determine what environmental factors that encourage or discourage older people from walking. The research participants raised a number of environmental factors that contribute to this.

Uneven concrete footpaths

Research participants expressed concern about uneven concrete footpaths in the study area. Those involved in the research identified a need for uneven concrete footpaths in the study area to be repaired.

Figure 6

An uneven concrete footpath in Lee Street, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

Grass footpaths

When asked to comment on the different surfaces that they walk on, participants identified uneven grass ‘footpaths’ as potential trip hazards.

Participants also mentioned that grass footpaths constitute a slip hazard when they are wet. This becomes an issue after rain and during winter (due to frosts).

Figure 7
Uneven grass footpath in Raymond Street, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

Unsealed roads

Participants expressed concern about roads in the study area that are yet to be sealed to the gutter. According to the participants, unsealed road constitutes an uneven and unstable surface on which to walk.

There was also the perception that unsealed roads contribute to the level of environmental dust throughout the study area and that this has an adverse effect on the health of older residents such as lung disease or asthma

Figure 8
Unsealed road in Raymond Street, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

Driveways

The research revealed that some of the driveways that intersect grass footpaths in the study area constitute a trip hazard for older people. Some participants have difficulties getting from a raised grass footpath down on to a driveway and vice versa.

Figure 9
Undulation where driveway intersects grass, Raymond Street, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

Kerb and guttering

There is the perception among older people that the kerbing on the eastern side of the main street in Wellington is too high.

When asked to comment on the step that breaks the kerb in this area into 2 levels, the participants pointed out that it is too narrow and poses a potential fall hazard.

One participant mentioned that they can't get up or down the kerb in this area unless they can use a nearby parked car to aid and support them. Participants identified the need for this portion of high kerbing to be remedied. Some suggested that more access ramps were needed.

Figure 10
Kerbing on the eastern side of Nanima Crescent, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

Pedestrian access ramps

According to the research, one of the pedestrian crossings in the main street of Wellington is very difficult for older people to access. This is particularly true for people with shopping trolleys, people in wheel chairs, and people who ride in gophers. Participants (including gopher drivers) mentioned that people in gophers are unable to use the crossing because the access ramp on the western side is too steep.

Participants also mentioned that people in wheel chairs and people with shopping trolleys can't use the crossing because they can't negotiate the ramp on the eastern side of the crossing.

The slope of the access ramp on the western side (left) of the pedestrian crossing in the main street is highlighted in Figure 11. Also illustrated is the angled nature of the access ramp on the eastern side (right) of the pedestrian crossing.

Figure 11

Access ramps, east and west sides of Nanima Crescent, Wellington, New South Wales



Source: The Safer Streetscapes for Older People Project.

Pedestrian crossings

Those involved in the research indicated that they feel unsafe when crossing at both of the pedestrian crossings that are located in the main street of Wellington.

There was a perception among participants that the pedestrian crossings in the main street 'creep up' on drivers and that drivers need to be given more warning that a pedestrian crossing is approaching. As one participant put it: 'some of the vehicles are coming very fast down that main street, and I don't think that they sometimes realise that the crossing's there until you're sort of half way onto it'. Those involved in the research expressed the view that the pedestrian crossings in the main street are in dangerous positions: 'I think that they're both in bad spots'.

Traffic

According to the research, traffic in the study area is busy in Lee, Raymond and Warne Streets as well as in Nanima Crescent (the main street).

Parking

The research participants identified a lack of disabled parking spaces in the main street as an issue.

However, participants were unable to identify which section of the main street is in most need of additional disabled parking spaces.

Seating

The research has revealed that older people want more seating in the study area. Participants are particularly concerned about a perceived lack of seating in the residential parts of the study area. As one participant put it: 'I feel there are not enough seats around here; it would be nice to see a seat down on the corner'. Similarly, another person said: 'There's plenty of seats around town, up around that main section, you know, where the shops are, but I think we can do with a seat around this end'. Most participants mentioned that the amount of seating in the main street is currently adequate.

Lighting

Those involved in the research were split down the middle when asked about the quality of the lighting in the study area. Some indicated that it was adequate, while others perceived it as being poor. There was, however, consensus that the main street is better lit than other streets in the study area. Participants indicated that they would be reluctant to walk at night even if the quality of lighting in the study area was improved.

Preferred surface for walking

Concrete footpaths are the preferred surface for walking for participants. According to the research, older people want more concrete footpaths in the study area:

Raymond Street was identified as the street in the study area in most need of new concrete footpath.

Managing without concrete footpaths

Most of the participants indicated that they walk on the bitumen road when a concrete footpath is not available.

Some of the research participants indicated that they felt unsafe while walking on the bitumen road and only did so because it is the most stable surface to walk on when a concrete footpath is not available. The major concern with walking on the bitumen is the perceived possibility of getting struck by a motor vehicle.

Pedestrian activity

According to the research, the following streets experience the majority of pedestrian activity: Main, Lee, Warne and Raymond Streets. Lee, Warne and Raymond Streets have been described by participants as the major linking streets between the main street and the remainder of the study area.

Driver behaviour

When asked about traffic flows within the study area, many participants referred to dangerous driver behaviour. The issue mentioned most frequently was that of speeding.

DISCUSSION

The Safer Streetscapes for Older People Project assessed comments from older people about the streetscape environment and compared this to current Australian Standards to assess suitability of current standards to the identified needs of older people. Current standards do reflect a streetscape environment that is appropriate for older people; however, one of the challenges for all councils is upgrading existing streetscapes to meet new standards. This is a major issue for all councils, particularly those that have a shrinking ratepayer base due to population decline. Capital works of this nature are extremely expensive and as a result the streetscape environment is below current Australian Standards. This environment is likely to contribute to fall-related injury, or fear of fall-related injury, in older people.

The research identified a number of issues pertaining to the streetscape within the study area that were of concern to the research participants, and identified some reasons why older people walk. The literature indicates 'slip and trip' hazards are risk factors for falls.⁴ Given this, it is not surprising that research participants nominated an even concrete footpath as the safest of all available walking surfaces primarily because it is stable underfoot. It is therefore not surprising that participants have indicated that they want more concrete footpaths in the study area.

Participants were also able to be very specific about the logical place to build a new concrete footpath. This was possibly because Raymond Street is one of only 2 streets in the study area that doesn't have a concrete footpath on at least one side of the road. Another factor that makes Raymond Street the 'logical' place to implement new concrete footpaths is that, according to the research, it incurs a high level of pedestrian activity, primarily because it is a link street between the main street of Wellington and the remainder of the study area.

From a safety perspective, one of the added benefits of constructing a new concrete footpath in the study area is that it might discourage residents from walking on the bitumen in the middle of the road. Most of the research participants indicated that they walk on the bitumen when a concrete footpath is not available. They do this because they consider unsealed roads and grass footpaths to be less stable surfaces. However, the bitumen, while being a stable surface, isn't necessarily the safest place to be walking as pedestrians and cars share the narrow road space.

While concrete footpaths were considered to be the preferred surface for walking, participants also identified problems with some of the existing concrete footpaths in the study area, particularly uneven areas that constitute potential trip hazards. Public place environmental hazards, especially 'slip and trip' hazards, are known risk factors for falls,⁴ and older people were well aware of this.

While pedestrian crossings are built to enable safer road crossing by pedestrians, participants in this study did not feel safe using the 2 crossings in the main street due to perceptions that cars travel too fast and motorists are not given adequate warnings of the crossings. In addition to feeling unsafe on the crossings, participants identified other problems with using the crossings. Access ramps on both sides of the crossing were reported as too steep to negotiate by people with shopping trolleys, in wheelchairs, or in scooters or 'gophers'. Considering that the crossing provides the best access from the only supermarket in Wellington to car parking and the taxi service on the other side of the road this presents a significant problem for older residents. It was felt by participants that the high kerbing on the main street (Nanima Crescent) is the most likely cause of the steep ramps.

In addition to the problems identified at the crossing, residents felt that the kerbing on the eastern side of Nanima Crescent is too high and that the step that breaks this kerbing into 2 levels is too narrow. With a general decline in balance, coordination and muscle strength associated with ageing,⁴ and deteriorating eyesight, older people may experience difficulty negotiating the kerb and gutter in Nanima Crescent. Participants were concerned they might trip while negotiating the steps in the kerb.

A fear of falling is something that deters some older people from leaving their home on foot. This is particularly true of older people who have sustained a fall.⁵ Older people also fear specific threats while walking in the neighbourhood. These include a fear of being attacked by dogs, and a fear of being knocked over (especially by those who ride bikes recklessly in the main street of Wellington). Older residents avoid streets where they fear unsupervised and unrestrained dogs may be lurking.

The process of ageing can undermine the physical functions that help prevent falls. Such functions include; good vision, sound muscle tone, good balance, and agility.⁴ Therefore, the provision of adequate seating is essential because it allows older people to take breaks from physical activity at regular intervals, which helps prevent the onset of fatigue. Fatigue has the potential to further inhibit balance and agility and increases the risk of a fall.⁴

Some participants indicated that they would like to see more seats in the residential areas of the study area. According to the research participants, Raymond, Lee, and Warne Streets are the streets pedestrians use most frequently when travelling to and from the main street. Therefore, it makes sense that these streets should have adequate seating (especially for people who carry their groceries from the main street to their home).

Older people walk for a range of different reasons including interacting with other people, exercise, transport, and for enjoyment. Some research participants revealed that older people who walk for transport often walk down to the main street of Wellington to purchase groceries and do errands.

Some of the research participants indicated that, for them, walking facilitates social interaction. This validates the need to create streetscapes within the study area that facilitate this form of physical activity. Increasing levels of physical activity in Wellington's older residents also has the potential to prevent falls because physical inactivity is generally regarded as a major modifiable risk factor for fall-related injury in older people.⁴

During the initial stages of the project the researchers experienced difficulties recruiting research subjects. The literature used to explain the project to the target group was reviewed by members of the advisory committee, who concluded that it was adequately clear and concise. The researchers then decided to issue a press release in an attempt to secure more research subjects. This proved successful, as subsequent radio and newspaper stories coincided with a dramatic increase in participation by the target group. Some of those who declined to participate in the research seemed sceptical of the council's commitment to the project.

The experience level of a researcher will have some bearing on the quality of both the data collected and the ensuing inferences made. The researchers described the training received from staff of the Faculty of Health Science at the Charles Sturt University (Dubbo) as invaluable, improving their knowledge and skills and preparing them for the research tasks. Skills in face-to-face interviewing and focus group facilitation improved as the research progressed. A researcher who participants can relate to can gain their trust and illicit more meaningful and accurate qualitative data.⁹ Despite the significant age difference between the primary researcher and the participants, which may have hindered the collection of meaningful data, he was in fact well-accepted by participants during the data collection. One of the reasons was that he was recommended to them as 'a nice young man' by a community nurse who was well known, trusted and respected by the group.

Given that the topic covered was not sensitive in nature, and that the researchers represented the health sector (as opposed to the council), it is not unreasonable to assume that the research participants had few reservations about speaking with the researchers. The respondents were aware that by participating in the research, they were seizing an opportunity to possibly influence the safety of the streetscapes within their neighbourhood. The nature of the project provided respondents with an incentive to put forward opinions and views that were honest and accurate.

The independence of the person transcribing the recordings became a problem, due to difficulty interpreting what had been said in the focus groups, resulting in an inefficient use of time and resources. It would have been preferable to have the scribe at the focus groups and it may have also been possible to record some of the discussion directly onto a laptop computer.

One of the draw backs of using grounded theory methodology, for a project that attempts to incorporate the views of a community into local government plans for capital work, is that it is difficult to predict how much data needs to be collected in order to achieve saturation. However, this was adequately accounted for during the planning phase of this project, with the project timeline allowing ample time for the data to be collected and analysed before the council's deadline for capital work to be considered for inclusion in its 2003–2008 management plan.

Recommendations to Wellington Shire Council

The recommendations were developed collaboratively between researchers and council, with both parties recognising the need to develop recommendations that were feasible. The recommendations needed to be 'appropriate': that is, as specific as possible and presented in a format that would allow them to be easily incorporated into council's management plan. This was facilitated by a close and supportive working relationship between researchers and council staff.

Given the Wellington local government area's small and declining tax base, recommendations needed to be financially viable and, consequently, some recommendations called for incremental modifications to the streetscape. For example, one of the research recommendations called for new concrete footpath construction in Raymond Street to occur one block at a time over a period of 4 years. Had this recommendation called for the same area to be concreted in a one year period then it is unlikely it would have been adopted. Given that all 7 recommendations were adopted, it is not unreasonable to argue that the project was successful in developing feasible recommendations.

In March 2003, the researchers compiled a report to council, in conjunction with council staff, and sought commitment that council would take action on the recommendations. Council endorsed all 7 recommendations and included them into their management plan for 2003–2008. A summary of the report recommendations are provided below.

Recommendation 1

New concrete footpath construction in Raymond Street.

Location	Year
Raymond Street Warne Street to Gisborne Street East side	2003
Raymond Street Gisborne Street to Soldiers Lane East side	2004
Raymond Street Soldiers Lane to Whiteley Street East side	2005
Raymond Street Whiteley Street to Gobolion Street East side	2006

Recommendation 2

Footpath maintenance for uneven concrete footpaths within study area.

Street	Locations	Priority
Gobolion Street Raymond to Lee South side	House Number 35	
Lee Street Gobolion to Warne West side	Garden Court Restaurant (Motor Inn) Country Car and Motor Cycle Centre Veterinary Surgeon Grand Hotel	Urgent
Whiteley Street Ford to Lee South side	House Number 25	
Gisborne Street Raymond to Lee South side	House Number 27	
Warne Street Ford to Lee South side		Urgent
Warne Street Lee to Raymond North side	House Number 20 House Number 24	Urgent
Nanima Crescent Both sides		Urgent

Recommendation 3

Reduce the speed limit in Wellington to 50 km/h.

Recommendation 4

Footpath logo to be painted on the concrete footpaths in Nanima Crescent (on both sides).

Recommendation 5

Construction of one seat on the eastern side of Raymond Street (between Soldiers Lane and Gisborne Street).

Recommendation 6

Address the high kerbing on the eastern side of Nanima Crescent. (This will probably coincide with the re-development of Nanima Crescent).

Recommendation 7

The access ramps on both sides of the pedestrian crossing in front of the park cenotaph gates in Nanima Crescent require redevelopment, possibly to coincide with the redevelopment of Nanima Crescent.

The recommendations were prioritised collaboratively between the researchers and council staff, with emphasis being placed on the capacity of the recommendation to prevent falls in older people. These recommendations were then endorsed by the advisory group before they were presented to council.

One of the barriers that needed to be overcome to allow for the development of 'appropriate' research recommendations was a lack of knowledge on the part of the researchers with regard to streetscape terminology and local government planning processes. For example, with regard to streetscape terminology, the researchers were initially unaware of the differences between kerbs and gutters, concrete and cement, and sealed and unsealed road.

With respect to local government planning processes, on numerous occasions the research recommendations needed to be refined in order for them to even be considered by the primary decision makers at council for inclusion in its management plan. The issue of uneven concrete footpaths in the study area can be used to illustrate this point.

After identifying uneven concrete footpaths as an issue, researchers made a preliminary recommendation that they be remedied. However, this was found to be too general and researchers needed to identify exactly where the uneven concrete footpaths were located (which streets, which side of the street, and in front of which houses), and how urgent their need of repair was. Once again, open communication between the researchers and council was vital in overcoming these difficulties.

The prioritisation of the recommendations didn't transpire as envisaged during the planning phase of this project. While the research was timed to fit in with council's local government planning cycle, the initial timeline developed for the project was slightly inaccurate. The date by which all proposed capital work had to be submitted for consideration by primary decision makers was 2 weeks earlier than the date specified in the project timeline and this wasn't realised by the researchers until less than one month before the deadline. Consequently, there was limited time to prioritise the research recommendations. It was anticipated that the recommendations would be prioritised by the advisory committee using nominal group techniques; however, due to time constraints, this didn't occur.

It is well documented that health promoting efforts are generally most effective and sustainable when they attempt to address the problem at hand from every conceivable angle using a diverse range of strategies. Bearing this in mind, the researchers have endeavoured to address the issues arising from the research that either couldn't be addressed in council's management plan or didn't fall under the responsibility of local government. These issues were brought to the attention of the appropriate agencies, with the researchers advocating for the appropriate action.

Council's response to the recommendations and other actions

Planning standards

The research identified an access ramp in the main street of Wellington that older people consider to be too steep to navigate. Standards Australia was consulted in order to determine which standard applied to this particular ramp. It was found that when the footpath was constructed approximately 40 years ago it met standards as they stood at the time but this set of standards had since been superseded. Modification of the ramp will not proceed until funding is sourced for redevelopment of the eastern footpath in Nanima Crescent. Although current standards reflect a streetscape environment that is most appropriate for older people, one of the challenges for councils is to source funding to upgrade existing streetscapes to meet these new standards.

Interestingly, after a press release was published in the *Wellington Times* regarding the project, the Roads and Transport Authority contacted the council and provided funds to rectify the access ramp on the western side of Nanima Crescent in front of the cenotaph gates to the park. The access ramp on the eastern side of Nanima Crescent remains unmodified.

Dogs in the study area

The issue of dogs in the study area was brought to the attention of council's ordinance officer. The researchers recommended that a press release be issued detailing the responsibilities of pet ownership and the subsequent penalties for non-compliance. The ordinance officer indicated in the last 2 years he had received few complaints involving unrestrained dogs in the study area. As a result it will be necessary to look at how older people can be encouraged to report concerns to the ordinance officer.

People riding bikes or skateboards on the footpath

The issue of people riding bikes and skateboards on the footpath in the main street of Wellington's central business district was brought to the attention of the Wellington Police Service. Council had erected signage in the main street highlighting that cyclists were not permitted to use the footpaths. After discussions between with police and council, it was decided the responsibility for monitoring and enforcing signage rested with council. A letter was written to council by researchers asking that behaviour be monitored and signage is enforced.

Pedestrian crossings

The issue of motor vehicle drivers experiencing difficulty seeing pedestrians crossing the main street was brought to the attention of council's traffic committee, which is comprised of police, council staff, and representative of the Roads and Traffic Authority. The researchers recommended that larger pedestrian crossing and advance warning signs be posted. These were erected.

Speeds checks in Nanima Crescent

Concerns were expressed to the advisory committee by older people participating in the research that motorists were exceeding the speed limit along Nanima Crescent. Those expressing concerns felt this driver behaviour posed a risk especially when using the pedestrian crossings. In response to these concerns the advisory committee decided to conduct a speed check at one of the pedestrian crossings. This check found that the majority of motorists (95 per cent) were travelling within the speed limit; therefore, no further action was taken.

Audit of council's management plan

An audit of Wellington Shire Council's 2003–2008 management plan and other internal documents revealed that at the commencement of the 2003 financial year council had made a commitment to all 7 research recommendations. An audit was conducted in May 2004 to determine which if any of the 7 recommendations had been acted on.

Recommendation 1: Construct new concrete footpath on the eastern side of Raymond Street (one block per year for 4 years). This was included in council's management plan. Construction of the proposed new footpaths was earmarked to commence during the financial year 2003–04 extending into 2006–07. On audit it was found no progress had been made toward commencing work on the construction of the new footpath. Council indicated construction of the first section of footpath would commence prior to the end of the 2003–04 financial year. In June 2004 the research team was contacted by council who indicated it was unlikely the footpath construction would proceed due to ratepayer objections. These objections had arisen as a result of ratepayers being notified they would be levied to help cover the cost of footpath construction (50 per cent of the costs). As a result, ratepayers had lodged verbal and written objections with council objecting to the construction of the new footpath in the study area. Some ratepayers stated they thought other sections of footpath in Wellington outside the study area were in greater need of work. They stated work in these areas would benefit the whole community not just residents of the study area. It is unclear if the construction of the footpath in study area will be undertaken at any point in the future.

Recommendation 2: Footpath maintenance for uneven concrete footpaths. This was earmarked for action in council's 2003–04 maintenance program. On audit it was found that all of the footpath maintenance recommended in the report had been undertaken, using a footpath grinding machine. This work was relatively easy and cost effective as council already had a footpath grinding machine and there was no capital outlay.

Recommendation 3: Reduce the speed limit in Wellington to 50km/h. The RTA introduced 50km/h speed limits in all built areas in New South Wales on November 1 2003.

Recommendation 4: Footpath logo to be painted on the concrete footpaths in Nanima Crescent to indicate no bike riding allowed. Council installed footpath signage (rather than a logo painted on the footpath) on Nanima Crescent to communicate to residents that bike riding is not permitted on the footpaths.

Recommendation 5: Construction of a seat on the eastern side of Raymond Street (between Soldiers Lane and Gisborne Street). On audit the seating had not been constructed although council indicated this would happen before the end of the 2003–04 financial year. By July 2004 the seating had not been installed.

Recommendation 6: Address the high kerbing on the eastern side of Nanima Crescent. Possibly to coincide with the redevelopment of Nanima Crescent, Council indicated that a redevelopment of Nanima Crescent was beyond its resources and couldn't be undertaken until a major source of capital funding is found. As a result no progress has been made in regards to this recommendation.

Recommendation 7: The access ramps on both sides of one of the pedestrian crossings in Nanima Crescent require redevelopment, possibly to coincide with the redevelopment of Nanima Crescent. Council indicated that the redevelopment of Nanima Crescent is beyond its current fiscal resources. In February 2004, following a media story placed by the researchers in the local newspaper about the Streetscapes project the Roads and Traffic Authority contacted council offering funds to modify the access ramp on the western side of Nanima Crescent. This work has been undertaken but the access ramp on the eastern side of Nanima Crescent is yet to be modified.

Capacity building indicators

Capacity building has been a process long entrenched in health promotion practice. It has been referred to as the 'invisible work' of health promotion and is the 'behind the scenes' work that practitioners undertake to ensure effective health promotion initiatives are likely to be adopted and sustained.¹¹ Capacity building involves at least 3 activities; building infrastructure to deliver health promotion programs, building partnerships and organisational environments so that programs and health gains are sustained, and building capacity for problem-solving.¹⁰

Capacity building was an essential element of the project. It was evident from the outset of the project that, because of resource constraints affecting council, some of the recommendations adopted by council would be implemented outside the project's 2-year timeframe. For this reason, considerable energy was put into capacity building by researchers who worked closely with council staff and the advisory group to ensure recommendations were presented to councillors in a format that they understood (to increase the chances of being adopted), and once adopted to make sure these were incorporated into strategic and management plans (to give them the best possible chance of being acted on). Researchers sought to increase the understanding of the advisory group and council staff about the benefits of redeveloping and designing future streetscapes with pedestrian needs in mind, by providing evidence about the benefits this would provide to the whole community.

As the project unfolded, it became evident that while some of the recommendations could be acted on relatively easily (for example, Recommendations 4 and 2) because they required little capital expenditure, others (for example, Recommendation 6) that required a major injection of capital funds to complete were unlikely to be addressed unless council could source additional capital funds. Interestingly, other recommendations (for example, Recommendation 2) that were within the scope of councils resources were not acted on because of ratepayer objections.

Researchers sought to quantify how successful they had been in their capacity building efforts, using 2 tools developed by NSW Health: Checklist 1 (assessing the strength of a coalition) and Checklist 4 (assessing if a program is likely to be sustained). These were used with varied success, making the capacity building aspect of this project difficult to scrutinise, measure and document.

Checklist 1: Assessing the strength of the coalition

This tool assesses how successfully coalitions with multiple agency partners plan, determine goals and objectives, and undertake tasks. It also seeks to determine the validity of group structure and its ability to achieve as a cohesive unit. A mature well-functioning partnership would be expected to score highly, with a maximum score of 48 possible points on completion of the checklist.¹¹

The tool was administered in July 2002, just after the commencement of the project, and in September 2003, just after the halfway point of the project. The score tallied at the completion of the checklist was converted to a percentage to assist with ease of interpretation of results. In July 2002, a mean of 74 per cent was achieved. In September 2003, a mean of 66 per cent was achieved.

It is pleasing that on both occasions the tool was administered it delivered a positive result. This was important, as a positive result reflects the group's confidence in its capacity to achieve program goals and outcomes. When the subsets of the questionnaire were further examined the following was revealed:

- Members of the advisory group were positive about aspects of the project such as variety of group members and skill mix, their ability to work cohesively as a group, and the lead organisation-convenor's ability to lead meetings effectively. The only aspect of the project that did not rate favourably was the question relating to time spent on the project outweighing the negatives of being involved: for example, time out of their workplace. This is not surprising given the group consisted primarily of professionals with busy and competing work demands and participation in the project was outside their normal work roles.
- High scores on problem solving and direction setting reflected the groups' confidence in its ability to problem solve as a cohesive unit and its sense of having a common purpose.
- Scores on decision-making processes, communication, information gathering, task allocation, documentation keeping were high. Areas that rated less favourably related to documenting processes and outcomes, setting and reviewing timeframes, resource gathering and use, media-public relations, reviewing members satisfaction with their participation in the project, and resolving internal conflict.

Checklist 4: Assessing if a program is likely to be sustained

This tool is designed for use with groups involved in a well-established program. It is designed to predict uptake and sustainability of a program. As outlined previously, researchers thought this to be an important aspect of this project. A maximum score of 28 was possible on completion of the checklist, which was administered in September 2003, just after the halfway point of the project. At this time a mean of 56 per cent was achieved. The tool was re-administered in April 2004, in the concluding stages of the project, to all members of the advisory committee. At this time a mean of 57 per cent was achieved.

Most group members rated awareness of the program among stakeholder organisations highly. However, other aspects rating less favourably included: program effectiveness, prospect for the program to require–generate additional funds in the future, and informal–formal skill training of people involved in the program.

Respondents rated highly the future host organisation’s ability to house the program and provide a strong organisational base for the project. The project was rated as compatible with that organisation’s mission and activities. However, the project partners did not feel that the program was part of the organisation’s core business, and that senior staff may not advocate for the program. It was felt that the host organisation may not be able to support the program adequately. The criteria of a host organisations history of being innovative with programs also rated less favourably.

Respondents indicated that the external environment favoured the program’s uptake, and it fitted well with community values, but future hosting or advocating for the program was seen to be less likely to occur.

Overall, on both occasions when Checklist 4 was administered it delivered a positive result. This is important, as a positive result reflects group confidence that the project will achieve outcomes beyond the lifespan of the project. Researchers were to a degree disappointed with results as they thought Checklist 4 did not appear to sufficiently capture the advisory group’s dynamics, energy, drive and enthusiasm, or the potential for project sustainability. One reason for this could be that the advisory group brought together professionals and community members from varied backgrounds while the design and application of Checklist 4 is intended for a health setting. This meant that it was assumed people completing Checklist 4 had a certain level of health system knowledge, concepts and language. As a result the researchers thought Checklist 4 was not able to be readily adopted by people outside the health system. In summary, the Capacity Building Indicators (both Checklist 1 and 4) did not prove to have a meaningful practical application in this study.

While council could see the benefits to their community of adopting all 7 research recommendations, actioning these were dependent on other factors such as council’s ability to acquire funds for capital works and lobbying from ratepayers in regards to priorities for capital expenditure. At the completion of the project, without an organisation advocating for the remaining recommendations to be actioned it is questionable if this will happen. Perhaps this is the reason why Checklist 4 results indicated group members were unsure of the programs longevity.

CONCLUSION

The Safer Streetscapes for Older People Project assessed comments from older people about the streetscape environment and compared this to current Australian Standards to assess suitability of current standards to the identified needs of older people. Current standards do reflect a streetscape environment that is appropriate for older people; however, one of the challenges for all councils is upgrading existing streetscapes to meet new standards. This is a major issue for all councils, particularly those that have a shrinking ratepayer base due to population decline. Capital works of this nature are extremely expensive and as a result the streetscape environment is below current Australian

Standards. This environment is likely to contribute to fall-related injury, or fear of fall-related injury, in older people.

The qualitative methods used in this project obtained valuable information from older people that could be articulated to community policy and decision makers by researchers as a means of advocating for changes to the streetscape. This process can be replicated with other community groups who have views about their local streetscape but who traditionally do not have a voice to express those views.

The Safer Streetscapes for Older People project used a combination of environmental, advocacy and educative strategies to improve the safety of the streetscapes in the study area. Wellington Shire Council responded well to the recommendations of the project by incorporating all 7 recommendations from the research into its management plan.

Despite the extensive research into the target group's needs, and the development of a rationale for incremental changes to the streetscape in the study area, outcomes have been limited by fiscal and political forces. Continued advocacy is required to ensure that by the completion of the Wellington Shire Council's planning cycle in 2008 progress is made on the remaining 4 recommendations.

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APPENDICES

Interview schedule for face-to-face interviews

- How often do you walk to and from places? never, sometimes, frequently

Schedule for sometimes and frequently

1. What does being able to walk to and from places mean to you? Is being able to get around town important to you? Why? Eg social interaction, independence or exercise.
2. Why do you walk? What are your main reasons for walking? Eg errands, visiting people, exercise.
3. Where do you usually walk to? Where do you go when you walk? Eg the park, corner store, down town. **Map**

Front of House

Drive way Likes / Safe / what is it about this that makes it easy to get around?
Dislikes / Unsafe / Hazards / what is it about this that makes it difficult to get around?
What would you change? What would make it easier or safer for you to get around?

Front lawn Likes / Safe / What is it about this that makes it easy to get around?
Dislikes / Unsafe / Hazards / What is it about this that makes it difficult to get around?
What would you change? What would make it easier or safer for you to get around?

Your Street (note: ask the same questions as we did for front of house i.e. likes/safe, dislikes/unsafe etc)

Walkways

Footpaths

Driveways

Crossing the road

Traffic

Lighting

Getting from the road to the footpath and vice versa

Local Area (as identified in question 4)

Walkways

Footpaths

Driveways

Crossing the road

Traffic

Lighting

Getting from the road to the footpath and vice versa

Downtown

Walkways

Footpaths

Driveways

Crossing the road

Traffic

Lighting

Getting from the road to the footpath and vice versa

4. Have you ever slipped or tripped while out and about in Wellington? Can you please tell us what happened?
5. Is there anything, apart from what we have already spoken about, that stops you from walking as regularly as you would like to? What else obstructs you from getting where you want to go? Eg dogs or other people.
6. Do other people that you know, who are about your age, have any difficulties when walking around this neighbourhood? What are these difficulties? Hazards?

Schedule for never

1. Can you tell me a bit about why you don't walk around your neighbourhood? What stops you from walking around your neighbourhood? Eg physically unable, don't like walking (if the interviewee chooses not to walk purely because they don't like walking then go to question 3)
2. How does this make you feel? Eg apathetic, angry, happy, lonely
Can you tell me why you feel like this? Why do you feel the way you do?
3. If you don't walk can you tell me how you get from place to place? How do you get where you want to go? Eg bike, gopher, wheel chair (if the answer is motor vehicle then go to question 6)
4. Where do you go to in your gopher, wheel chair etc? Where do you go when you go out? Eg the park, corner store, down town. **Map**

Front of House

Drive way Likes / Safe / what is it about this that makes it easy to get around?
Dislikes / Unsafe / Hazards / what is it about this that makes it difficult to get around?
What would you change? What would make it easier or safer for you to get around?

Front lawn Likes / Safe / What is it about this that makes it easy to get around?
Dislikes / Unsafe / Hazards / What is it about this that makes it difficult to get around?
What would you change? What would make it easier or safer for you to get around?

Your Street (note: ask the same questions as we did for front of house i.e. likes/safe, dislikes/unsafe etc)

Walkways

Footpaths

Driveways

Crossing the road

Traffic

Lighting

Getting from the road to the footpath and vice a versa

Local Area (as identified in question 4)
Walkways
Footpaths
Driveways
Crossing the road
Traffic
Lighting
Getting from the road to the footpath and vice versa

Downtown
Walkways
Footpaths
Driveways
Crossing the road
Traffic
Lighting
Getting from the road to the footpath and vice versa

5. Do other people that you know, who are about your age, have any difficulties when walking around this neighbourhood? What are these difficulties? Hazards?
6. Do you know anyone, who is about your age, who has ever slipped or tripped while out and about in Wellington? Can you please tell us what happened?

Issues of concern:

It is difficult to ask people what they like about the lighting, or what they think is safe about the traffic, or what they like about crossing the road. People won't know what we mean (I don't even know what we mean).

Will walk ways suffice for the public area in front of peoples houses (the area where a footpath probably should be but isn't)?

Should we be letting the interviewee identify a need for footpaths, rather than automatically including footpaths in the schedule?

When we ask the interviewee about walk ways we should clarify where they walk i.e. what surface. For example, JB walks on the edge of the road.

Summary of Training

- Don't reveal to interviewee that we are new at doing qualitative research. It is important that they think we are comfortable with conducting the research (we are professionals).
- Start up general conversation first. Tell me what it is like living in Wellington, tell me about your family, and tell them about ourselves.
- Tell them why we are doing the research (what's in it for them).What will happen with the info provided.

- Inform them that they can opt out at any stage of the interview
- Cover the tape recorder. Because we don't like it.
- Don't let silence worry us. Don't immediately assume that they haven't understood the question. Rephrase if necessary.
- If you get a one word response then ask why
- Keep a journal about how each interview has gone
- We want their story not our own
- Do not coerce a response

Schedule for focus group questions

- How often do you walk to and from places, or around your neighbourhood? Prompt: never, sometimes, frequently

Schedule for sometimes and frequently

1. What does being able to walk to and from places mean to you? Is being able to get around your neighbourhood important to you? Why is it important or unimportant? Probe: What reasons? Prompt: seeing friends, independence, exercise.
2. Why do you walk? Probe: What are your main reasons for walking? Prompt: errands, visiting people, exercise.
3. Where do you usually walk to? Where do you go when you walk? Prompt: the park, corner store, down town. Map

If you can, we would like you to try and imagine yourself walking along your usual route. Try to think about what you like about taking this route, what you dislike about taking this route, and whether you encounter any hazards when you take this route.

Route (Probes)

When we probe we need to remind the interviewee that we are interested in what they like, what they dislike, and whether they can identify any hazards. When an interviewee identifies a hazard or something that they dislike then we need to ask them what would you change? what would make it easier or safer for you to get around?

The types of probes that we use will depend on the routes identified by the interviewee.

- What surface do you usually walk on? Prompt: the side of the road, the footpath, the grass between the gutter and the houses, dirt walk ways. Is there another type of surface that you would prefer to walk on?

- What can you tell me about the driveways that you encounter when you walk along this route? Do you feel safe when walking across these driveways? Can you please expand on this?
- Do you feel safe when you cross the road? Can you please expand on this?
- What is the traffic like along this route? Does it get busy at any particular point? If yes, where? Do you feel safe crossing the road when there is a lot of traffic? Can you expand on this please?
- Do you ever walk at night time? Don't forget about winter time when it can get dark quite early...If yes, is it light enough for you to see where you are walking? Do you feel safe with the amount of light that is available? Can you please expand on this?
- Do you ever have difficulties getting from the road to the footpath and vice versa? Can you please expand on this?
- Do you have any concerns about dogs that roam the streets un supervised?
- Is there any particular reason why you take the route that you take? Prompt: it is the quickest way to get where I want to go.
Is there anything that is stopping you from walking a different way?

4. Is there anything, apart from what we have already spoken about, that stops you from walking as regularly as you would like to? What else stops you from getting where you want to go? Prompt dogs or other people.
5. Do other people that you know, who are about your age, have any difficulties when walking around this neighbourhood? What are these difficulties? hazards?
6. Have you ever slipped or tripped while out and about in Wellington? Can you please tell us what happened and where it happened?
7. Can you think of any hazards that develop after it has been raining for an extended period of time?
8. Can you think of any hazards that you have encountered while walking down the main street?

Schedule for never

1. Can you tell me a bit about why you don't walk around your neighbourhood? Probe: What stops you from walking around your neighbourhood? Prompt: physically unable, don't like walking
(if the interviewee chooses not to walk purely because they don't like walking then go to question 3)
2. If you don't walk can you tell me how you get from place to place? Probe: How do you get where you want to go? Prompt: bike, gopher, wheel chair (if the answer is motor vehicle then go to question 4)

3. Where do you go to in your gopher, wheel chair etc? Where do you go when you go out? Prompt: the park, corner store, down town. Map

Route (Probes)

When we probe we need to remind the interviewee that we are interested in what they like, what they dislike, and whether they can identify any hazards. When an interviewee identifies a hazard or something that they dislike then we ask them What would you change? What would make it easier or safer for you to get around?

The types of probes that we use will depend on the routes identified by the interviewee.

- What surface do you usually travel on? Prompt: the side of the road, the footpath, the grass between the gutter and the houses, dirt walk ways. Is there another type of surface that you would prefer?
 - What can you tell me about the driveways that you encounter when you travel along this route? Do you feel safe when travelling across these driveways? Can you please expand on this?
 - Do you feel safe when you cross the road? Can you please expand on this?
 - What is the traffic like along this route? Does it get busy at any particular point? If yes, where? Do you feel safe crossing the road when there is a lot of traffic? Can you expand on this please?
 - Do you ever travel at night time? Don't forget about winter time when it can get dark quite early...If yes, is it light enough for you to see where you are going? Do you feel safe with the amount of light that is available? Can you please expand on this?
 - Do you ever have difficulties getting from the road to the footpath and vice versa? Can you please expand on this?
 - Is there any particular reason why you take the route that you take? Prompt: it is the quickest way to get where I want to go.
Is there anything that is stopping you from going a different way?
4. Do other people that you know, who are about your age, have any difficulties when travelling around this neighbourhood? What are these difficulties? hazards?
 5. Have you ever slipped or tripped while out and about in Wellington? Can you please tell us what happened and where it happened?
 6. Can you think of any hazards that develop after it has been raining for an extended period?
 7. Can you think of any hazards that you have encountered while down the Main Street?

