DEPARTMENT OF TRANSPORT AND COMMUNICATIONS

FEDERAL OFFICE OF ROAD SAFETY

DOCUMENT RETRIEVAL INFORMATION

Report No.	Date	Pages	ISBN	ISSN
CR 111	November 1992	46	0 642 511969	0810-770X

Title and Subtitle

OLDER PEDESTRIAN DEMONSTRATION PROJECT: FINAL REPORT

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Abstract

This is a summary of the reports submitted by 17 local governments describing their participation in the Older Pedestrian Demonstration Project. In that project, these local governments were funded by the Federal Government to undertake demonstrations of the types of approaches that could be taken to overcome older pedestrian safety problems. This Final Report includes a brief synopsis of each of the local government's activities for older pedestrian safety in the funding period, and a discussion of the various methods used. It is intended that this Final Report will provide local governments around Australia with a resource document that details treatments used to improve older pedestrian safety.

Keywords

Pedestrian safety, elderly road users, demonstration projects, LATM, countermeasures

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FINAL REPORT

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1 EXECUTIVE SUMMARY

INTRODUCTION

This report has been prepared by the Federal Office of Road Safety (FORS) to provide local government authorities (LGAs) across Australia with a summary and assessment of the Older Pedestrian Demonstration Projects carried out by 17 LGAs from 1988 to 1990.

The projects were funded by $368,798 provided by FORS and, in some cases, by additional funds provided by the councils. As shown by the 109 councils that applied for grants, there are many LGAs that are interested in developing strategies for improving the safety of their older pedestrians. Much of the experience and information gained in addressing the problems of older pedestrian safety by the LGAs that were funded under this project, could be used by other councils. The aim of this report is to stimulate interest and present possibilities and options for action to interested local government authorities around Australia.

Pedestrian safety is a significant problem in Australia. More than 5500 pedestrians have been killed on Australian roads in the ten years from 1980 to 1989. People aged over 60 account for almost 40 per cent of pedestrian fatalities, despite making up only around 15 percent of the total population. Around 25 percent of pedestrians aged sixty or over who are injured in traffic accidents will die, compared to a figure of 15 percent for the population as a whole.

Local government, with responsibility for local roads and knowledge of community and local facilities, has a significant role to play in improving conditions for older pedestrians.

The role of local government is identified in the National Road Safety Strategy as vital in developing community awareness of local road safety issues and providing and managing local road and transport infrastructure in harmony with the safe environment objectives of local communities. The Older Pedestrian Demonstration Project was a cooperative project between federal and local governments, instigated by FORS in recognition of the role of local government in addressing the growing problem of safety for older pedestrians in an ageing community.

In November 1988 the Minister for Land Transport and Shipping Support, Bob Brown, wrote to all local government authorities in Australia inviting applications for funding for a limited number of demonstration projects to improve the safety of older pedestrians. The grants were to be awarded competitively with selection criteria including the quality of the proposal, the level of liaison with community groups, the range of possible countermeasures to be considered and the preparation of a coordinated plan by councils.

$368,798 was distributed among the 17 projects that were chosen from a total of 109 applications for funding that were received from LGAs.

THE LOCAL GOVERNMENT PROJECTS

The projects are discussed in detail later in this report. The activities covered by the projects included carrying out comprehensive research on the Australian and overseas experience in this field, extensive community consultation programs, formulating long-term action plans, designing and implementing counter-measures to improve older pedestrian safety and evaluating, where possible, the results of the projects. The local government authorities that carried out the demonstration projects, received the following grants:

Municipality of Deniliquin, NSW, $8,880
City of Maitland, NSW, $20,000
City of Newcastle, NSW, $30,000
City of Queanbeyan, NSW, $23,700
Shire of Quirindi, NSW, $4,400
Municipality of Waverley, NSW, $19,460
Municipality of Willoughby, NSW, $29,875
City of Hervey Bay, Queensland, $30,000
City of Heidelberg, Victoria, $30,000
Cities of Port and South Melbourne, Victoria, $26,667
City of Sale, Victoria, $26,000
District of Elliston, South Australia, $1,356
City of Henley and Grange, South Australia, $27,460
Tatiara District Council, South Australia, $6,000
City of Melville, Western Australia, $25,000
City of Clarence, Tasmania, $30,000
City of Hobart, Tasmania, $30,000

FINDINGS

Local government in Australia is uniquely placed to initiate pedestrian road safety measures. By using and developing community links local government can respond to local needs directly through tailored engineering and education measures. Local government has a pivotal role to play in guaranteeing that special consideration is given to the needs of older pedestrians in negotiating a changing road and traffic system.

The ongoing involvement of older pedestrians in identifying problems and formulating answers benefits the community and councils. The powerlessness older pedestrians often feel when using the road system can be reduced and older residents perceive that their council is committed to understanding and dealing with the difficulties they face using the road system. Older pedestrians are provided with a sense of ownership of the education programs and countermeasures taken to improve their situation. Councils benefit by gaining information that allows them to respond efficiently and effectively to pedestrian problems.

Despite wide variations in the size and nature of the participating LGAs, many of the problems and potential solutions that emerged from the demonstration projects were common across Australia. Most of the councils developed plans combining engineering and behavioural strategies as the long term approach to older pedestrian safety.

The engineering works planned and instigated by the councils are common sense solutions to the physical and psychological problems that can accompany ageing. Some of the works most commonly identified by those councils that considered engineering measures were median islands and pedestrian refuges, kerb ramps, hand rails and safety barriers, more pedestrian crossings and longer 'Walk' phases at crossings with signals.

The range of measures identified in the demonstration projects, combined with information on the demographics of the LGAs, provides a substantial base of information for other LGAs to consider. The methods and activities undertaken by councils to achieve the aims of their projects are discussed in detail in Section 5, EVALUATION under the following headings:

Community Involvement
Engineering / Physical Works
Education / Information
Group Meetings
Telephone Contact Service
Other Road Users
Signs / Maps
Reflective Material
Brochures, Advertisements, Television, Radio,
Video, Newspapers
Display Stands
Risk Assessment

The report does not attempt to rate and compare the success of the funded councils in the particular projects that were undertaken. Many of the funded projects were primarily concerned with researching the problems faced by older pedestrians in local areas and designing plans for future action by councils and the community. Also, the widely differing populations, conditions and amount of funding received by the councils would make a comparison of the projects meaningless. Much of the useful information relates to the processes used by councils in discovering and defining the needs and problems of their local older pedestrians.

2 STRUCTURE OF THE REPORT

Section 3, PROJECT BACKGROUND, discusses the background to the funding program, the history and design of the overall project and the process of selecting the successful council submissions.

A summary of the successful submissions and the reports provided by the funded councils are presented in Section 4, OLDER PEDESTRIAN DEMONSTRATION PROJECTS.

Section 5, EVALUATION presents the information provided by the funded councils in their reports of the individual projects. Details of the methods and tools used by the councils, with reference to each council's report, is also discussed.

In CONCLUSIONS, Section 6, the outcomes, findings and recommendations of the demonstration project as a whole is discussed.

3 PROJECT BACKGROUND

PEDESTRIAN SAFETY IN AUSTRALIA

Pedestrian safety is a significant problem in Australia with more than 5500 pedestrians killed on Australian roads in the ten years from 1980 to 1989. Each year almost 3000 pedestrians are treated in hospital as a result of traffic accidents.

There are identifiable groups of people within our communities that are particularly at risk such as children and older pedestrians. People aged over 60 account for almost 40 percent of pedestrian fatalities, despite making up only around 15 percent of the total population. For pedestrians aged sixty or over, around 25 percent of those who are injured in traffic accidents will die. For the population as a whole, this proportion is less than 15 percent.

Older pedestrians have a great reliance on community and other local facilities. This gives local government a significant role to play in improving conditions for this group. Planning for older pedestrian road safety at the local level means that councils may have to focus on local roads and access to local facilities such as shopping centres, elderly citizens clubs and other community facilities. Planning should take into account and relate to the patterns of pedestrian movements within a particular area.

In the draft National Road Safety Strategy released in December 1991, the role of local government is identified as a vital one in relation to the developing federalism in Australia and likely demographic changes in the future. In relation to the national strategy, local government is identified as pursuing the development of community awareness of local road safety issues and providing and managing local road and transport infrastructure in harmony with the safe environment objectives of local communities.

The Older Pedestrian Demonstration Project is an example of a cooperative project between federal and local governments, with the federal government providing money, in the form of grants, direct to councils to address pedestrian safety problems. Of course, the state governments play a major role in this area, with the primary responsibility for funding state arterial and local roads and for mounting road safety education programs.

Under the NSW Road Safety 2000 plan, a strategic plan for the 1990s and beyond, the Roads and Traffic Authority (RTA) emphasises the role of local government and community groups in developing and promoting road safety programs and the necessity of cooperation between local, state and federal road agencies to improve road safety for all Australians.

Victoria has established a network of autonomous Community Road Safety Councils (CRSCs) to help communities tackle road safety problems. These councils develop educational and publicity programs directed at problems that emerge from analysis of local road casualties. CRSCs encourage community support and sponsorship for road safety campaigns and encourage liaison between community groups, the police, VIC ROADS and local government. CRSCs are funded jointly by VIC ROADS and other forms of sponsorship.

A popular approach to improving pedestrian safety in recent years has been the use of local area traffic management schemes (LATM). These schemes are primarily concerned with improving traffic flow and reducing the conflict between vehicles and pedestrians. Often traffic is directed away from residential streets and the traffic using those streets is slowed. Engineering works such as traffic roundabouts and speed humps are often incorporated for this purpose. Many of the engineering works discussed and/or implemented in the older pedestrian projects are components of councils' LATM. These LATM schemes often involve cooperation between local government and state government roads and traffic authorities.

HISTORY OF THE OLDER PEDESTRIAN DEMONSTRATION PROJECT

In November 1988 the Minister for Land Transport and Shipping Support wrote to all local government authorities in Australia in response to concern in the community and at all levels of government about the growing problem of older pedestrian safety. The Minister, Bob Brown, invited councils to submit applications for funding for a limited number of demonstration projects to improve the safety of older pedestrians.

The grants were to be awarded on a competitive basis with councils being assessed against a number of selection criteria. Councils were asked to design projects that:

- identified the extent of the problem;
- involved extensive liaison with community groups;
- considered a full range of possible countermeasures including public education of both drivers and pedestrians, modification of driver and pedestrian behaviour, traffic planning and traffic engineering;
- involved the preparation and implementation of a coordinated plan; and
- evaluated the effectiveness of the overall plan.

The projects were termed 'demonstration projects' as it was intended that they would act as useful models for other councils. Councils were required to complete their individual projects by 31 December 1989 and provide a report on the conduct and evaluation of the projects by 31 January 1990.

A selection committee was formed comprising Mrs Billie Hall, who had been involved in the older pedestrian public education campaign and represented older pedestrians, Mr Don Sheffield representing the Australian Council of Local Government Associations, and Ms Sue Kerr and Mr Bob Hancock from the Federal Office of Road Safety.

As part of the selection process the selection committee considered, among other things:

- the older pedestrian problems faced in each local government area;
- the quality of each council's proposal; and
- each council's commitment to improving older pedestrian safety (eg. councils with developed strategies for pedestrian safety or with a willingness to co-fund engineering works).

A total of 109 applications for funding were received from councils. The 17 projects chosen by the selection committee represented rural, provincial and urban areas and councils from all states. The successful councils received a total of $368,798, with individual grants ranging from $1,356 to $30,000.

4 LOCAL GOVERNMENT OLDER PEDESTRIAN PROJECTS

Municipality of Deniliquin

The Municipality of Deniliquin, NSW, has 7843 residents with approximately 17% of its population aged over 60. The Municipality received a grant of $8,880 to carry out a public education campaign in two phases using the local mass media.

Radio, television and print media were used to develop awareness of road safety issues in the older population of the area and to raise awareness in the general population of the problems faced by older pedestrians. The primary phase of the campaign was carried out up to and through Christmas 1989 and this was followed by further publicity around the Australia Day Weekend.

Deniliquin Council are confident that the campaign assisted in raising community awareness of issues which were being addressed at the time by the Deniliquin Aged Care Council. The results of the campaign were investigated by conducting Focus Groups with the aged, discussions with the Senior Citizens' Club and general community discussion. Council found that the program had a positive effect across the community and that it had been very successful in reaching the aged target group.

Action on older pedestrian safety issues continued after the conduct of the campaign with Council appointing a consultant to do a main street plan for the community.

(Reference: Report from Deniliquin Municipal Council to the Federal Office of Road Safety, July 1990)

City of Maitland

The City of Maitland, NSW, has a population of 44,571 with 12% of its population aged over 60 years. Maitland City Council received $20,000 to design a public education package aimed at improving the road safety of senior citizens. The package was made widely available throughout the area and included a video, posters, brochures, bumper stickers and bookmarks.

Council commissioned a local company, Oadan Productions, to produce the 'Walk right into the 90s' package, emphasising the problems faced by older pedestrians in dealing with a changing road system. Consultation to establish the problems faced by older pedestrians took place with the Maitland Senior Citizens Association, individual older residents of Maitland and the NSW Road Transport Association. A literature review was also undertaken to determine the physical factors that can affect the safety of older pedestrians.

The consultants made some general findings from this process that were used to develop the "Walk right into the 90s" package, including that:

- the most dangerous time for older pedestrians is between the hours of 4.00pm and 8.00pm and the injury rate is 30% higher in winter months;

- a common problem for older drivers was what to do at roundabouts with many older drivers driving many kilometres from a direct route to avoid roundabouts; and

- changed and new traffic signs and major roads with high traffic volume create problems for older drivers.

The 'Walk right into the 90s' video was made with members of the Maitland Senior Citizens Association. The video highlights a number of problems for pedestrians, including crossing major highways, negotiating roundabouts and how to use pedestrian facilities. Council provided a team of people to address older residents organisations on road safety using the video to raise awareness of older pedestrian problems.

(Reference: 'Walk Right into the 90s: A Report on Improving Road Safety for Senior Pedestrians' prepared for Maitland City Council by Oadan Productions, 1989)

City of Newcastle

The City of Newcastle, NSW, has a population of 129,956 with 27,500 people, or 22% of its population, aged over 60 years. Newcastle received a grant of $30,000 to carry out a study into pedestrian safety for older people in the Newcastle area.

The objectives of the study were:

- to identify the major concerns of aged pedestrians;

- to raise awareness of older people regarding pedestrian safety issues; and

- to provide a priority list of projects.

The consultants retained by Newcastle City Council to conduct the study carried out extensive consultation with older people and service providers in the area and held a series of informal workshops in Newcastle. In addition, Australian Bureau of Statistics (ABS) and accident record data were analysed, specific sites assessed and an extensive literature search was undertaken.

Council produced a substantial report recommending a range of strategies, including engineering and educational measures, designed to improve pedestrian safety for older people.

RECOMMENDATIONS

The recommendations of the report stress the value of generally targeting areas for improvement that have concentrations of older people and regarding locations with a history of accidents involving older pedestrians as priority targets for safety improvements. The report makes some interesting general points about road planning with particular consideration for the problems faced by older people. Some factors to consider being:

- avoiding changes in level, without appropriate colour differentiation;
- providing roads and paths that are well lit;
- avoiding pavement surfaces that reflect light.

The report discusses a number of engineering measures including:

Crossings: crossings with signals should allow flexibility in timing with consideration given to extending the pedestrian phase in areas with high concentrations of older people; and in conjunction with pedestrian crossings, works that could be considered include median refuges, provision of handrails, increased visibility of crossings and the introduction of pedestrian nibs to ensure that cars do not park too close to crossings;

Footpaths: works to be considered include kerb ramps, handrails, seats at bus stops and regular reviews of footpath conditions and amenities, particularly in areas of high concentrations of older pedestrians;

Roundabouts: councils should consider pedestrian needs when assessing possible roundabout locations;

Lighting: there is a particular need for adequate lighting near pedestrian crossings that are often used by older pedestrians.

In considering the planned educational campaign the report recommended that Council provide a brochure on older pedestrian safety. The brochure would outline the measures that are to be introduced to improve pedestrian safety and discuss the need for older pedestrians to take care and to be aware of their own limitations and those of drivers. It was suggested that the brochure be widely distributed and that Council should also maximise opportunities to publicise the issue of road safety for older pedestrians.

Following the pattern of successful and extensive community consultation that was undertaken by the consultants, the report recommended that Council should examine ways in which the community might have opportunities for greater involvement in decisions affecting pedestrian safety.

(Reference: 'Pedestrian Safety for Older People in Newcastle, prepared for Newcastle City Council by Purdon Associates Pty Ltd and Transportation Environment Consultants')

City of Queanbeyan

The City of Queanbeyan in NSW, received a grant of $23,700 to carry out a public education campaign to increase general awareness of the problems faced by older pedestrians. Queanbeyan has a population of 22,579 people with approximately 10% of residents being over the age of 60.

The campaign began in March 1990, timed to coincide with the Autumn/Winter period when there was an established rise in the rate of pedestrian accidents. The campaign was also synchronised with the commencement of state wide campaign called 'Safe Seniors' which was being run by the NSW Roads and Traffic Authority (RTA).

Council established a community based steering committee for the campaign with representatives from a number of local organisations for older citizens and other community service groups. Consultants were hired and television and newspaper advertisements, posters and bumper stickers were produced. In addition, copies of the RTA 'Safe Seniors' kits were obtained in English, Greek, Italian, Macedonian, and Polish for distribution in the local area.

The campaign used advertisements and free publicity in the local media to raise awareness of the older pedestrian safety issue and to foster interest in the resources Council had available. At the same time, workshops were held with older citizens groups, Courteous Driver Awards were conducted using the bumper stickers and a Pedestrian Safety Quiz was conducted in a local paper.

(Reference: 'Improving Road Safety for Older Pedestrians Final Report - Demonstration Project, City Of Queanbeyan, March 1990 - October 1990')

Shire of Quirindi

The Shire of Quirindi in NSW has a population of 5467 with over 17% of the population aged over 60 years. Quirindi received a grant of $4,400 to carry out engineering works that Council had previously identified to upgrade older pedestrian facilities.

The aim of the works was to provide a safer pedestrian environment to suit the needs of less mobile members of the community. Using Council funds as well the FORS grant Council constructed:

- 200 metres of footpath providing a link between a retirement home and other facilities;
- a pedestrian crossing providing access to a corner store;
- a mid-street pedestrian refuge blister in front of the Cultural Centre and Library;
- seating at intervals along the length of the main street.

By using the available Council funds to supplement the grant money, Quirindi Shire Council was able to enhance access for older pedestrians in around the central business district of the town and provide a pedestrian link between the CBD and fringe areas.

(Reference: Report from Shire Clerk of the Council of the Shire of Quirindi to the Federal Office of Road Safety, 9 March 1992)

Municipality of Waverley

The Municipality of Waverley in suburban Sydney received $19,460 to develop a road safety plan for older pedestrians in the municipality. Waverley has almost 20% of its population of 59,873 aged over 60.

Council established a Steering Committee comprising council staff and representatives from the police, the Council on the Ageing and the Royal Blind Society to oversee the project. The Committee liaised with the Waverley Traffic Committee throughout the project. Consultants, Travers Morgan, were engaged to prepare the plan which was made available for public comment before the Steering Committee made its final recommendations to Council.

Extensive community involvement was an essential component of the development of the road safety plan. This included surveying over 600 residents aged over 60 on road safety problems and pedestrian movements, consultation with local organisations and holding a public meeting to comment on the consultants' recommendations.

RECOMMENDATIONS

Based on the consultants report and consultation, a policy on road safety was proposed to Council. The proposed policy recommended that:

- Council promote measures to improve the pedestrian environment in local streets and public places;
- Council seek to enhance pedestrian movements along and across heavily trafficked streets;
- Council protect, upgrade and expand the pedestrian network of footpaths, walkways and lanes;
- Council ensure that planning decisions cater adequately for pedestrian flow and safety (eg. consideration of overhead walkways from one shopping centre to another);
- Council seek the incorporation of audio-tactile units and prominent call buttons in new and upgraded pedestrian operated signals; and
- the Waverley Traffic Committee include Pedestrian Safety as one of its formal aims

Under the pedestrian safety plan the following implementation strategies were proposed to be carried out by Council.

Physical works comprising:

- the installation of signalised pedestrian crossings, audio tactile facilities, marked pedestrian crossings, median islands and a pedestrian refuge;
- increased maintenance and upgrading of footpaths; and
- the redesign of intersections.

Raising community awareness by:

- conducting small group meetings with organisations for older people to discuss road safety issues;
- organising an annual 'Pedestrian Road Safety Week' involving displays, newspaper releases and guest speakers;
- ensuring ongoing community consultation to form a central component of planning that impacts on pedestrian safety; and
- promoting the use of the Community Transport service and Council Access bus to provide options for pedestrians at risk.

General proposals included:

- negotiating a pilot program with the RTA to test the effects of extending the walk phase of traffic lights at selected intersections;
- investigating flood lighting for all pedestrian crossings in the Municipality;
- consideration by Council Town Planning Department of information in the report concerning linking of pedestrian routes; and
- provision of adequate signs prohibiting skateboard and push-bike riding in the main shopping mall.

Council adopted the Road Safety Plan for Older Pedestrian as outlined above, endorsing the policies and implementation strategies and referring the engineering works identified in the report to the Council Works Committee for consideration and endorsement.

(Reference: 'Report to Federal Office of Road Safety Department of Transport and Communications on Waverley Road Safety Plan for Older Pedestrians' Waverley Municipal Council, August 1990

'Waverley Road Safety Plan for Older Pedestrians' prepared by Travers Morgan Pty Ltd for the Council of the Municipality of Waverley, April 1990)

Municipality of Willoughby

The Municipality of Willoughby, NSW, has a population of 51,000 people with 21% of the population over the age of 60. Willoughby received $29,875 to research and design a road safety strategy focussing on the rapidly developing commercial and retail centre of Chatswood.

Council commissioned Applied RTD Consultants to carry out the study and produce recommendations for Council. There was a strong focus on consultation with the Municipality's older citizens throughout the research phase of the project. This included consultation/education meetings with groups of older people, public seminars and surveys of older pedestrians. Recognising the effectiveness of this approach, the consultants recommended that Council should incorporate this process as part of its planning and consultation programs with the elderly.

Chatswood was chosen as the site of the study as the area has an increasing aged population and there are many services for the elderly located around the town centre. Also, Chatswood is changing rapidly with significant amounts of development and construction taking place in and around the town centre.

The recommendations of the report are made against the background of the consultants' general findings that:

- older pedestrian safety relates to actual physical experiences (eg. accidents and falls) and perceptions and feelings of safety and confidence;
- 47% of the older pedestrians surveyed had little or no confidence in their safety in walking around the Chatswood area;
- the two main problems experienced by older pedestrians in the area were difficulties with uneven footpaths and that the walk phase on traffic signals was too short to allow the road to be crossed safely; and
- measures to improve the safety of older pedestrians are best developed in the context of the overall development strategy for Chatswood and pedestrian plans for the area.

RECOMMENDATIONS

The report made a number of recommendations to Council, including the following:

- Planning:
    - development of a comprehensive pedestrian plan for the town centre, specifically incorporating safety and access provisions for the elderly and disabled, and consideration of the needs of elderly residents in the overall development strategy for Chatswood;

- adoption by Council of specific policies for the elderly in town planning, traffic management, information, publicity and participation, to be developed in consultation with organisations for the elderly and the Aged Services Committee; and

- development of ongoing mechanisms to consult and inform older people about planning development and change in Chatswood.

- Engineering:

  - Council urgently repair damaged and dangerous footpaths and review standards of footpath and ramp design, construction, maintenance and monitoring;

  - establishment of a telephone notification system for urgent repairs to footpaths;

  - adoption of seating standards which incorporate the needs of the elderly, and review the availability of seating;

  - review access and conditions for older pedestrians at the Bus Rail Interchange; and

  - include measures to accommodate the needs of elderly pedestrians in traffic control measures at construction and work zones.

- Education, Information, Publicity and Communication:

  - Council support the RTAs community education program in Willoughby Municipality;

  - Council implement a coordinated information and publicity strategy including, mobility maps, information boards/maps, an access book for the disabled and regularly publish local information on issues relevant to pedestrians; and

  - Council establish an information service/telephone contact point for older residents to provide relevant information and receive complaints.

(Reference: 'Chatswood Changes - The Road Safety of Elderly Pedestrians in Chatswood Town Centre' April 1990, Applied RTD Consultants. Commissioned by Willoughby City Council and funded by FORS)

City of Hervey Bay

The City of Hervey Bay in Queensland received a grant of $30,000 to implement an education and road engineering program for older pedestrians. Hervey Bay has approximately 27% of residents over the age of 60 out of a total population of 18,000 people.

The program planned by Council had resulted from earlier consultation with local older residents groups. Council established a committee to supervise the implementation of the project with representatives from Council, the Traffic Safety Section of the Queensland Department of Transport, local police, a local retirement village and the Blue Nurses.

There were three elements to Council's project - an education program, a pedestrian crossings study and the upgrading of a footpath in an area of difficult terrain and with a high incidence of older pedestrian use. The footpath was completed in August 1989.

The Pedestrian Crossing study, carried out by consultants Ken King and Associates, reviewed the available literature on the subjects of older pedestrians and pedestrian crossings and reviewed and made recommendations on the pedestrian crossing facilities in Hervey Bay. Integral to the preparation of the report was a workshop conducted with local residents on the existing problems associated with local crossing facilities. The report was submitted to Council for consideration of the budget requirements to carry out the recommended engineering works.

The education program focussed on elements that had been previously identified as being important to older pedestrians - skateboard and bicycle riders, older pedestrians and older drivers.

Local skateboard and bicycle riders were reached through two television videos/advertisements featuring local children with publicity for the videos/advertisements on local television and radio. Media coverage was maximised by launching the videos to coincide with school holidays. FORS Road Safety Packages were also distributed to local schools by the Council and a display emphasising the need for safety for older pedestrians was established in the shopping plaza.

The campaign to reach older pedestrians and older drivers was carried out by volunteer Rotary Club members speaking to older road users through established community groups in the area. The trained volunteers were committed to running the program for twelve months, with the possibility of other Rotary Clubs carrying out similar activities across the state.

Also, with the assistance of sponsorship from local business and the grant funds, Council have produced and distributed brochures and posters aimed at older road users. This publicity, under the general heading of 'STOP, LOOK, LISTEN' is designed to be placed at strategic locations where it is likely to be viewed by older residents.

(Reference: 'Pedestrian Crossing Facilities in the City of Hervey Bay: A Review Emphasising Road Safety Implications for Older Pedestrians.' Ken L. King & Associates, for the Council of the City of Hervey Bay

'Hervey Bay City Council - Report on the Implementation of the Project to Improve the Safety of Older Pedestrians in Hervey Bay' presented to FORS, May 1992)

City of Heidelberg

The City of Heidelberg, Victoria, has a population of approximately 62,000 with almost 12,000 residents over the age of sixty. Heidelberg received $30,000 to research and prepare an action plan for road safety for older pedestrians.

Council commissioned consultants Loder and Bayly to carry out the study and produce a report, working with a steering committee with representatives from Council, the Office of Road Safety, Roads Corporation Vic. and the Regional Council on the Ageing.

The study was designed to improve the understanding of the perceptions, problems and behaviour of older pedestrians, to suggest engineering or traffic measures to improve road safety, and to devise behavioural and educational measures to deal with the issues. Accident statistics were analysed and Australian and overseas literature was reviewed.

Extensive community consultation was conducted by holding discussion groups with older people, by using local radio and newspaper publicity to draw out information and by interviewing a number of key members of the community.

The consultants came to a number of general conclusions including:

- many people were uncertain about priority at road intersections, experienced difficulties understanding pedestrian signal phases at signalised crossings and had a lack of understanding of many Local Area Traffic Management devices (eg. speed humps and threshold treatments);
- excessive traffic speed was a primary cause of concern for most people contacted;
- pedestrian refuge islands in the middle of roads were regarded as being very helpful; and
- footpaths need to be kept in good repair and free of obstacles.

RECOMMENDATIONS

The report made a number of recommendations to Council.

Information/Education:

- that a series of articles on pedestrian safety issues, suitable for reproduction as leaflets, be produced and placed in the local press, and radio 'spots' covering the issues be prepared;
- that a series of television 'spots' on the safety of older pedestrians be prepared with the assistance of the Roads Corporation, and a series of short safety films be prepared with state and federal road authorities assistance;

- that a trial series of conspicuous safety signs be displayed at identified danger spots;

- that subjects that should be covered through the processes listed above include:

    - Crossing at controlled intersections
    - Crossing at uncontrolled intersections
    - Crossing the road where there is no crossing
    - Being seen (visibility)
    - What to do at a T-intersection
    - New changes to our roads
    - What the different road signs mean
    - How to be a safer pedestrian (at all times)
    - How to be a safer pedestrian at night

Engineering (as well as recommendations specific to locations in the Heidelberg area, the report makes some general, engineering recommendations):

- co-ordination of adjacent pedestrian signals at strip shopping centres;

- improved definition of crossing points at strip shopping centres;

- pedestrian crossings to be located near major pedestrian activity points, eg. banks, shops;

- pedestrian safety/crossing time at traffic signals be improved by -

    - publicising the operation of traffic signal eg. explanation of the DON'T WALK phase,

    - pedestrian phasing providing sufficient time for all pedestrians to cross without conflict with traffic,

    - a speed of one metre/second walking to be used in traffic signal operations,

    - audible/tactile (beeper) signals to be used at all signalised crossings;

- the meanings of various LATM devices be publicised;

- pedestrian refuge islands be provided at mid block and intersection locations; and

- resources be directed to maintaining footpaths and keeping them clear of obstructions.

(Reference: 'Older Pedestrian Safety Strategy, Final Report' prepared by Loder and Bayly Consulting Group for City of Heidelberg Council, November 1989)

Cities of Port Melbourne and South Melbourne

The Cities of Port Melbourne and South Melbourne in Victoria, made a joint submission for funding and received a grant of $26,667 to research older pedestrian safety and to devise and implement a public education program. Port and South Melbourne have a combined population of over 26,000, with more than 19% of residents over 60 years of age.

The Councils decided to use well established, existing community liaison networks in the six month project. Opinion leaders in the community were used as a way of transmitting campaign messages to older residents. A professional educator conducted group educational sessions throughout the community; radio broadcasts, road signs, printed materials and stencils spray painted on the footpath were used extensively; and individual contact with older pedestrians was made through the use of display tables in popular locations where free safety kits (in community languages) were distributed.

A number of objectives were identified for the project, including:

- To increase the level of awareness of the issue of safety for older pedestrians among older residents of South Melbourne and Port Melbourne.
- To identify and refer for appropriate assistance those at an increased risk of accident due to physical disabilities and/or the use of medication.
- To increase the awareness among motorists as to the need to drive with caution due to a high number of older pedestrians in the area.
- To increase the awareness among older pedestrians of the risk of accidents.
- To increase the knowledge about safe behaviours needed to prevent accidents.
- To produce a report making recommendations concerning changes which would improve the safety and mobility of older pedestrians, to be distributed to all levels of government.

The project targeted two groups of people:

- those aged 60 years and older who spoke either English, Greek or Italian and lived in South or Port Melbourne; and
- all motorists in South or Port Melbourne, including residential drivers and those who drive through the area.

A management committee was established comprising two Aged Services workers, two senior engineers and four older members of the community. A full-time project officer was employed on the project for six months. In order to identify safety problems for older pedestrians, a literature review was conducted, residents and motorists were consulted and a survey was administered to residents and motorists who regularly drive through the area.

A substantial and comprehensive report was produced by the Councils, with detailed information on the conduct of the community consultation process and the community education campaign. In addition, the report contains many specific recommendations for improving the road safety for older pedestrians, some of which are listed below.

RECOMMENDATIONS

- Engineering/Physical:
  - more medians and pedestrian islands on main roads;
  - extended walking time allocation at signals frequented by older pedestrians;
  - signs stating 'Caution Older Pedestrians' should be permanently placed in areas where older pedestrians use the roads;
  - design of roundabouts should be reviewed or an alternative treatment found for intersections with a high usage by older pedestrians;
  - a higher standard of footpath maintenance should be introduced;
  - cobblestones should be removed or covered where older pedestrians cross; and
  - differential colour treatments should be used on footpath and kerb edges to identify potential hazards.
- Pedestrians:
  - procedures should be established for the ongoing involvement of pedestrians/older residents in the planning of their environment;
  - reflective garments/articles should be made available to older residents at minimal cost; and
  - education about older pedestrian safety should be available and promoted.
- Motorists:
  - Councils should continue a public campaign to make motorists more aware of older pedestrians.
- Skateboarders and Cyclists:
  - strategies for skateboarders and cyclists combining enforcement, education, and the construction of facilities should be formulated in South Melbourne and Port Melbourne.

- Traffic Planning:

  - existing information regarding traffic accidents should be an important part of the planning and evaluation of traffic management projects;

  - planning for new projects should include consultation with community groups; and

  - there should be channels for residents to make suggestions and bring problems to the attention of traffic planners.

(Reference: 'Older Pedestrian Safety Project' report prepared by City of Port Melbourne and City of South Melbourne, January 1990)

City of Sale

The City of Sale in Victoria has over 13,000 residents with almost 12% of its population aged over 60 years. Sale received a grant of $26,000 to undertake a research project aimed at developing an older pedestrian road safety action plan.

The objective of the project was to prepare a practical model for the enhancement of the safety of the older residents of the City of Sale by:

- identifying existing problems and determining their extent;

- preparing an education program directed at older pedestrians;

- launching a road safety, public awareness and promotions campaign through the media; and

- implementing engineering improvements.

Input from Council officers and police, along with responses from a questionnaire distributed to older residents, allowed for the identification of high usage areas for older pedestrians and possible improvements to pedestrians facilities

Group meetings were held with organisations representing older residents and a public meeting was held for those not involved in the other groups. The meetings were used to distribute questionnaires, encourage community awareness of road safety, including distributing educational brochures, and to discuss possible engineering improvements.

Local mass media were used to promote older pedestrian safety and advertise a week long promotion that was held in a major regional shopping centre. Questionnaires, educational material and free reflective visibility belts were distributed. During the promotion a television advertisement directed at older pedestrians was shown regularly on the local television station.

A number of minor engineering works were carried out as part of the project, including upgrading footpaths, improving street lighting, improvements to general pedestrian facilities and removing dense growth in medians.

RECOMMENDATIONS

The comprehensive report prepared by Council on the progress of the project lists a number of recommendations including recommending that Council:

- makes every effort to control traffic speeds within the city by:
  - the use of sound innovative engineering designs for traffic facilities,
  - encouraging police enforcement,
  - launching media campaigns, and
  - participating in educational programs;
- promotes:
  - the introduction of road safety education programs into school curriculums,
  - the introduction of an approved standard, visibility belt/sash, and
  - community involvement in road safety programs through local media;
- conducts annual road safety meetings with various older residents groups; and
- instigates a program to carry out the necessary physical works identified by the project.

(Reference: 'City of Sale Improved Road Safety for Older Pedestrians - Demonstration Project' report prepared by RJ Gilbert, City Engineer, December 1989)

District of Elliston

The District of Elliston in rural South Australia received a grant of $1,356 to devise an action plan for older pedestrian safety. The District has three main population centres with approximately 9% of its population of 1260 residents being over 60 years of age.

In order to formulate a plan, Council held meetings with the older residents of the District, liaised with the local police and requested the public to forward submissions on the problem to Council. Council then produced a report defining the problem and outlining possible action to address the problem. The report was distributed for comment and any significant comments were incorporated into a final report submitted to Council for assessment and adoption.

RECOMMENDATIONS

The recommendations that emerged from this process included:

- Engineering works:
  - footpath maintenance, provision of wheelchair ramps, improved definition-of footpaths, clearing of vision obstructions;
- Information/education:
  - suitable signs be placed to warn motorists of the presence of older pedestrians and pedestrian crossings;
- Enforcement:
  - local police be requested to enforce street parking regulations to deter parking on footpaths and to enforce speed restrictions.

The final report was adopted by Council and distributed to all those who made representations or submissions on the issues to Council.

(Reference: 'Inquiry into the Extent of the Risk of Death or Injury to Older Pedestrians within the Elliston District' report of the District Council of Elliston, June 1989)

City of Henley and Grange

The South Australian City of Henley and Grange received a grant of $27,460 to formulate a comprehensive program aimed at improving road safety for older pedestrians. Henley and Grange has a population of approximately 15,000, with 22% of residents aged 60 years or more.

After consultation with community groups and older residents and analysing existing accident data, it was decided that an education kit emphasising community participation was the most appropriate means of improving the safety of older pedestrians.

Community consultation was carried out with older residents groups, individuals were invited to contribute to the project in the local press and two surveys were conducted. The significant findings that emerged from this process were that walking was a significant recreational activity and an important mode of transport for many older people, and that the major problems for this group related to footpath construction and personal safety.

The Walksafe Kit produced by Council consists of a series of 18 slides and script (also available as a VHS video) and an accompanying brochure. The aims of the kit are to:

- educate older people about safe walking and to equip them with techniques and strategies to achieve this;

- encourage discussion between the public and relevant authorities on local pedestrian safety issues;

- encourage people to communicate information about pedestrian safety hazards to their Council; and

- present an active positive image of older people.

The kit was publicised through the Local Government Association publication, local press and an official launch.

RECOMMENDATIONS

As no particular locations in the area emerged from the research as being hazardous for older pedestrians, the report on the project to Council recommended the continuing monitoring, maintenance and upgrading of footpaths.

(Reference: 'Walksafe Report - Improved Safety for Older Pedestrians' produced by Council of the City Of Henley and Grange, Project Co-ordinator Victoria Vyvyan, May 1990

'City of Henley and Grange Walksafe Project - Study of Pedestrian Accidents in Henley and Grange Interim Report' B Tonkin & Associates, November 1989

'Walksafe Project - A Research Report' Harrison Market Research Pty Ltd, November 1989)

Tatiara District Council

Tatiara District Council in South Australia has approximately 7,000 residents with 13 % of the population made up of people aged 60 or over. Tatiara received a grant of $6,000 to:

- purchase reflective material suitable to be worn by pedestrians,

- to publicise the campaign, and

- to collect data.

Council purchased reflective tape, carry bags, vests, arm or ankle bags and swing tags. The Tatiara Road Safety Committee placed advertisements in the local press, and received substantial free publicity, calling for volunteer, older pedestrians to participate in the project. Direct contact was also made with organisations representing older citizens.

Volunteers were asked to attach some reflective material to an item of clothing or bag. Observations by the Committee members and members of the public confirmed that pedestrians who wore the lime green, reflective material could be seen up to 1/2 a kilometre away when oncoming car lights were on high beam.

After a few months of conducting the project, the Road Safety Committee extended the program to include all pedestrians, concentrating on supplying reflective material to school children.

(Reference: 'District Council of Tatiara - Report on the Pedestrian Identification Project financed by the Federal Department of Transport and Communications' July 1990)

City Of Melville

The City Of Melville in Western Australia has 17% of its population of almost 69,000 residents aged over 60 years. Melville received $25,000 to carry out a series of road engineering works.

The engineering works included pedestrian crossings, handrails, pedestrian refuge islands and paved footpaths constructed near centres of accommodation for older residents and community facilities. The works to be carried out were identified as part of a major, local area traffic management plan for the area. Council prepared its submission for funding with the assistance and full support of the Main Roads Department.

Council research indicated that the demand for older persons accommodation, including both independent living units and hostel accommodation, can be expected to increase. As a result, the need for a safer environment for older pedestrians is of growing significance.

The details of the engineering works specifically directed at the safety of older pedestrians include:

- angle island breaks for improved visibility for those residents who have difficulty turning their heads;
- relocating handrails from central locations to the side to help wheel chair users;
- handrails increased in size to 50mm diameter for greater visibility to motorists, and placed on the traffic approach side for the protection and security of older pedestrians;
- reflective material on handrails; and
- painted red pavement markings to identify the edge of the road.

(Reference: 'Older Pedestrian Facilities - City of Melville Experience' City of Melville Council, August 1990)

City of Clarence

The City of Clarence in Tasmania has approximately 46,000 residents with 13% of the population aged 60 years or more. Clarence Council received $30,000 to research and prepare an action plan for older pedestrian safety in the Bellarive Ward of the city.

Bellarive Ward was chosen for the study because, as one of the older residential areas of the city, it has a very high aged population. Council formed a management group to oversee the study with representatives from the Department of Roads and Transport, Clarence City Council and the Royal Guide Dogs for the Blind Association of Tasmania. The Clarence Senior Citizens Centre provided essential assistance in evaluating the requirements and pedestrian patterns of older residents, the usefulness of existing pedestrian devices and in the dissemination of information to older pedestrians.

In the first phase of the project, Applied Research Consultants were contracted to carry out a home interview survey of older pedestrians with the assistance of the Clarence Senior Citizens Centre. This was followed by a review of the function, operation and design standards of pedestrian facilities, emphasising the needs of older pedestrians.

Finally, written and video public education material was produced for use by senior citizens groups. This material concentrates on how to select safe road crossing techniques and pedestrian routes.

RECOMMENDATIONS

Council have produced a substantial report, 'You've Come This Far', detailing the progress and findings of the project, including a review of international, national and local accident statistics and a literature review. The findings and recommendations contained in the report include:

- Research findings:
    - most older pedestrian activity occurs in the hours from 8.00am to 11.00am;
    - overpasses were identified as unsuitable for older pedestrians;
    - time allowed on the walk phase of traffic signals was considered to be insufficient; and
    - older pedestrians need to be educated in
        : traffic rules
        : car speeds and stopping distances
        : safe pedestrian behaviour
        : pedestrian 'rights'.

- Behavioural phase of study:

  - there was a need for effective dissemination of safe route selection and road crossing techniques for older pedestrians, with this need being met by the production of the "You've Come This Far' kit, containing presenters information, educational video promotional material and a road safety quiz.

- Engineering phase:

  - increase 'Walk' time at signals to 8.0 seconds and 'Don't Walk' calculation to 1.0 metre per second for pedestrian crossing signals in those locations with a significantly higher level of older pedestrian activity;

  - educate older pedestrians to use part time school crossings when available;

  - incorporate low gradient ramps and pedestrian fencing in future grade separated facility design;

  - upgrade pedestrian refuges and provide pedestrian nibs at troublesome intersections; and

  - consider the needs of older residents in future land-use planning and redevelopment.

The management group's plan of action for Council included:

- actively promoting the 'You've Come This Far' presentation kit to local and interstate interest groups;

- modifying the guidelines for pedestrian facilities to incorporate the improvements identified in the study;

- obtaining a commitment from Clarence City Council to undertake a pedestrian facility upgrading program; and

- highlighting the need for proper pedestrian planning with those groups responsible for planning facilities for older pedestrians.

(Reference: "'You've Come This Far...' Report, Elderly Pedestrian Safety, Bellarive Ward City of Clarence", City of Clarence, January 1990)

City of Hobart

The City of Hobart in Tasmania has a population of approximately 47,000 with almost 12% of the city's population made up of people aged 60 years or over. Hobart received $30,000 to carry out a research program into older pedestrian safety leading to public education and engineering countermeasures.

Council chose to focus the program on Sandy Bay Road, a major arterial route through a suburban strip shopping area with an over-representation of older pedestrian accidents when compared to the rest of urban Tasmania. The objective of the project as defined by Council was for:

'the development of a co-ordinated cost-effective safety improvement plan for elderly pedestrians using Sandy Bay Road which can be implemented within realistic resource and time frames and which would have widespread community acceptance by virtue of close community consultation'.

Council sought the community view of older pedestrian problems and possible solutions by holding discussions with interested community groups and organisations and then conducting a workshop/seminar to consolidate community opinions. The basic action plans for engineering, education and enforcement programs were formulated at this forum. Also, written submissions were called for and received from some community groups. Local print media and radio were used to promote the program and the consultative process.

Council were able to use information recently gathered during the conduct of a planning study, 'Sandy Bay Shopping Study 1990', which had included a category for elderly Pedestrians in its engineering phase. A survey of pedestrian behaviour was carried out using video recordings of crossings of Sandy Bay Road. Also, an observational survey of crossing behaviour of older and 'other' pedestrians was conducted to establish existing problems with crossing techniques.

RECOMMENDATIONS

The comprehensive report produced by Council as part of the project details recommendations that include:

- Engineering:
    - placement of traffic/pedestrian signals,
    - installation of audio-tactile devices,
    - reconstruction of major median to incorporate widening and hand-rails at strategically located median breaks, and
    - lengthened 'Walk' times at major traffic signals;

- Education:

  - to conduct a Brighter Clothes Colour Promotion, 'Be Seen Be Safe', in the community,

  - installation of Advisory Crossing Technique education boards at traffic/pedestrian signals', and

  - promotion of the 'You've Come This Far' video and education kit that had been produced by the City Of Clarence under the Older Pedestrian Safety Project.

(Reference: "Elderly Pedestrian Safety, Sandy Bay Road, Sandy Bay: A Report prepared under a Federal Government Grant administered by FORS by the City Engineers Department, Corporation of the City of Hobart, November 1990')

5 EVALUATION

A requirement for the selection of the Older Pedestrian Demonstration Projects was that the projects would act as examples or demonstrations of possible action for other LGAs. The collective results of the projects show that, using limited resources, directed action involving community consultation can be an efficient and effective way for local government to tackle areas such as older pedestrian safety.

As discussed earlier the activities funded by the grants were, in many cases, concerned with researching local older pedestrian problems and designing action plans to deal with these problems. The reports provided by the funded councils to FORS were primarily written before the strategies or action plans were substantially implemented. Hence, no formal evaluation of project outcomes is available.

However, some councils were able to evaluate some aspects of their projects and this material is discussed here. Also, it has been possible to generally discuss the consistency and frequency of the methods and tools used by councils and the reaction and support of the community to the activities of the councils.

The methods and activities undertaken by councils to achieve the aims of their projects are discussed in detail in this section under the following headings:

Community Involvement
Engineering / Physical Works
Education / Information
Group Meetings
Telephone Contact Service
Other Road Users
Signs / Maps
Reflective Material
Brochures, Advertisements, Television, Radio,
Video, Newspapers
Display Stands
Risk Assessment

COMMUNITY INVOLVEMENT

One of the selection criteria for the projects was that they should involve extensive liaison with community groups. For most of the councils this meant approaching and involving the existing organisations that represent older residents in their areas. Some councils such as Hervey Bay and Port Melbourne and South Melbourne had established relationships with these organisations and had already discussed with them the problems faced by older residents in negotiating the road system. These existing relationships facilitated the research leading to the identification of local problems and the formation of the action plans.

Despite the considerable differences of the size, location and local conditions of the LGAs involved in the projects, the suggestions and solutions that emerged from the community consultation process and that were incorporated in action plans were often identical or similar. Similarly, the information that councils and their consultants obtained from literature searches and statistical studies was often common across the councils. This makes the engineering and public education activities identified in the action plans and discussed below particularly useful for other LGAs.

One of the findings that emerges very strongly from a number of the councils is that there are two overriding considerations in older pedestrian safety - the actual physical experiences of older pedestrians and their confidence as pedestrians. This is comprehensively discussed in the Municipality of Willoughby report which stresses that perceptions and feelings of safety and confidence are an integral part of older pedestrian safety. The report of the City of Henley and Grange also discusses perceptions of safety and the need to design public education material to include a positive image of walking for older residents.

Improving the confidence and attitudes of older pedestrians is a complex matter. An underlying requirement is to create a caring and safe pedestrian environment where the needs of older pedestrians are considered. Establishing ongoing consultation with older residents, where their views and preferences are routinely considered as a part of the planning process, is a strategy that a number of councils have chosen.

The report of Newcastle City Council is clear in its support of the community consultation process undertaken as part of the project. The report recommends an ongoing commitment by Council to examining ways in which the community might have opportunities for greater direct involvement in decisions affecting pedestrian safety. Similarly, the Municipality of Willoughby report recommends that Council incorporate the process of consultation with older residents into its planning process. The report states that developing ongoing mechanisms to consult and inform older residents about planning issues creates an environment conducive to pedestrian confidence.

The City of Clarence report recommends actively pursuing the consideration of elderly citizens in future land-use planning and redevelopment.

The surveys conducted by the Cities of Port Melbourne and South Melbourne included responses indicating that residents were pleased by the concern for older people indicated by the conduct of the campaign and the consultation process Councils had undertaken.

The road safety policy adopted by Waverley Council as a direct result of the older pedestrian project committed Council to ensuring that ongoing community consultation will form a central component of planning that affects safety.

The community groups involved in the Sandy Bay Road Project in the City of Hobart indicated that they would be prepared to be involved in ongoing monitoring of the effectiveness of the countermeasures taken by Council. Council expected this process to provide valuable feedback on the project.

There are many factors that affect the initial response and ongoing involvement of community groups in education and awareness campaigns. Queanbeyan Council points out that service clubs often decide at a particular time of the year what major projects to support and might not be in a position to lend support to other projects that arise later. Also, co-ordinating approaches to community groups with action being taken by umbrella groups such as Councils for the Ageing or other government instrumentalities like the RTA, can maximise community support.

The Cities of Port and South Melbourne carried out a valuable evaluation of the effectiveness of their Older Pedestrian Safety Campaign to assess the penetration of the campaign through the older pedestrian community. The evaluation involved, in part, carrying out pre- and post-campaign surveys and a subjective evaluation involving discussions with residents and members of the management committee. The survey results indicated a positive response to the safety campaign with an increase of approximately 10% in overall awareness of older pedestrian safety issues.

ENGINEERING / PHYSICAL WORKS

The physical works planned, and in some cases carried out by councils, show a great consistency across the shires and municipalities. They are essentially common sense solutions to the particular problems faced by older pedestrians. The physical and psychological deterioration that can accompany ageing requires that pedestrian facilities used by older pedestrians, particularly where there are concentrations of people over sixty, take account of specific problems.

The City of Clarence report provides a useful description of the factors that need to be considered in planning engineering works that reflect the needs of older pedestrians, including:

- a reduced capacity to take quick, evasive action when there is the potential for an accident;
- a deterioration in visual and hearing functions that adversely effect the older pedestrian's capacity to see and hear oncoming traffic;
- an increase in decision-making and reaction times and a reduction in information-processing capacity;
- a deterioration in the neuro-muscular system and stiffer joints reduce walking speeds; and
- an increased susceptibility to injury and shock.

A general consideration for councils when planning older pedestrian facilities is that ideally the placement of facilities should match usage patterns. As discussed in the reports of many of the councils, older pedestrians tend to make regular use of local facilities such as shopping centres, libraries, meeting rooms utilised by older residents groups and public transport terminals and interchanges. Safe pedestrian access to retirement villages and other concentrations of older pedestrians is an important consideration. A related consideration is the provision of linked pedestrian routes across local areas. These are routes that link destinations and modes of transport. This is particularly important to older pedestrians who are often users of public transport.

The following is a list of engineering/physical works that have been identified in the councils' reports. As an indication of the common need for such works, each is followed by a number indicating the number of councils that listed the work either for construction on a permanent basis or for a trial period. (Four of the seventeen councils did not list any engineering works in their reports.)

• audio-tactile devices at crossings (provide an audible indicator of when lights change	4 councils
• kerb ramps	5 councils
• provision of pedestrian crossings, particularly to provide access to often used facilities	6 councils
• handrails/safety fences/barriers, often in conjunction with other facilities such as median/refuge islands	6 councils
• median islands/pedestrian refuges, to allow pedestrians to assess traffic in two stages	11 councils
• longer 'Walk' periods at crossings with signals, particularly in areas of high older pedestrian usage	7 councils
• different pedestrian speed measurement for traffic signals with high older pedestrian usage (suggested speed of 1 metre per second)	2 councils
• footpath construction	6 councils
• improved footpath maintenance	9 councils
• keep footpaths clear of obstructions	3 councils

• adequate lighting at crossings (possibly floodlights)	5 councils
• differentiate level changes using colour	3 councils
• pedestrian nibs near crossings and/or intersections	4 councils
• adequate seating incorporating older pedestrian needs, particularly at bus stops	3 councils
• consider pedestrian usage when planning roundabouts (identified as difficult for older pedestrians to negotiate)	3 councils
• measures to accommodate the needs of older pedestrians at traffic control and construction sites	1 council
• redesign of intersections	1 council
• co-ordination of pedestrian signals at strip shopping centres	1 council
• road closures	1 council
• speed humps	1 council
• control traffic speeds in strip shopping centres	1 council

For some councils, of course, a number of the engineering works listed for implementation by other councils, had already been implemented under previous council funding. Some councils were able to undertake engineering works as a component of the Older Pedestrian Demonstration Project using the FORS grant alone or supplementing it with council funds. Other councils identified works to be done under future budget allocations.

For most councils the physical works, and therefore the evaluation of their effectiveness, was not completed at the time of providing a report to FORS. However, the City of Melville report contains an evaluation of the engineering works that were completed as part of their project. A questionnaire distributed by a retirement village in proximity to the engineering works indicated that the improved older pedestrian facilities had been successful in giving older people more confidence in crossing busy roads more safely.

EDUCATION / INFORMATION

Most of the funded councils had public education as a component of the projects. For some it appears as a part of an action plan for future implementation but many councils had the opportunity to carry out some public education and information activities during the grant funding period.

As with the engineering works, the approaches taken by many councils to the provision of information on older pedestrian safety are similar. As mentioned earlier, for many councils the success of the process of consultation taken with the older residents groups in their areas led to a commitment to continuing this form of dialogue.

The importance of the timing of public education campaigns was mentioned in some reports. Hervey Bay launched their campaign directed at school children to coincide with school holidays. Queanbeyan conducted their campaign over the Autumn/Winter period to coincide both with the time when most accidents happen to older pedestrians and with a state wide 'Safe Seniors' campaign being run by the RTA.

GROUP MEETINGS

The City of Sale found that conducting group meetings with a speaker were an effective and inexpensive way to conduct a public education campaign. Meetings brought together people with similar interests and problems, allowed them time for questions and provided the opportunity to distribute and highlight other educational material. Council received very favourable feedback for conducting the meetings.

It was recommended to Council in their report that annual group meetings be held with organisations representing older residents, to discuss road safety problems and inform them of Council's planned works program. These meetings would also be an opportunity to conduct an ongoing education campaign on pedestrian safety.

Henley and Grange designed their Walksafe Kit so that it can be used by any community group, with or without a trained presenter. This allows for the kit to have the maximum circulation among interested groups. Council points out however, that using a skilled presenter ensured that maximum community participation occurs.

Waverley Council endorsed the strategy of raising community awareness by conducting small group meetings with organisations for older people to discuss a range of pedestrian road safety issues using the 'Safe Seniors' kit prepared by the RTA.

TELEPHONE CONTACT SERVICE

The councils of Willoughby, Sale and Henley and Grange all recommended the establishment of a telephone information service/contact point for older residents. This is to serve a two-fold purpose of a central contact for older pedestrians to report problems such as footpath damage, and to provide information on pedestrian facilities and planning matters. Other councils already had such a service in place.

OTHER ROAD USERS

One of the common problems identified in the council reports was that other road and footpath users did not understand how their behaviour contributes to the problems faced by older pedestrians. The groups consistently identified were vehicle drivers, bicycle-riders and skateboarders.

A number of the public education campaigns conducted by councils and mentioned below recognised this problem and directed publicity, in various forms, at these user groups. A useful response taken by Waverley and Hervey Bay to the problems posed by bicycle riders and skateboarders is to ensure that there are adequate signs warning where these activities are forbidden.

SIGNS / MAPS

The provision of local mobility maps was suggested by some councils. These could be distributed through the rates notice system and/or through older residents' groups. The maps can provide information on safe routes, location of local amenities, public transport and use of pedestrian facilities.

Willoughby and Sale both recommended providing information boards containing similar informational material in locations often used by older pedestrians. One of the recommendations of the Hobart report is to install and highlight education boards at pedestrian crossings to provide specific information on crossing techniques.

As with all printed material provide to the public, councils need to consider the make-up of their older populations and provide translations in appropriate community languages.

As part of their public education campaign, Port Melbourne and South Melbourne erected seven signs measuring 2 metres by 3 metres on major roads leading into the municipalities. The signs read:

'The Communities of Port Melbourne and South Melbourne - Home to 5,000 Older Pedestrians - Please Drive Carefully'.

Smaller signs reading 'Caution - Older Pedestrians' incorporating symbols of older pedestrians, were used in areas frequented by older pedestrians. Stencilled messages were placed on footpaths where accidents involving older pedestrians had occurred. Councils received a favourable response to the signs with survey respondents considering them to be clear, easy to read and informative. The locations of the large signs on major roads were considered to be well chosen.

Using grant funds and sponsorship from local businesses Hervey Bay produced the 'STOP, LOOK, LISTEN' publicity, which included posters designed to be placed in locations that attracted older pedestrian traffic.

The report adopted by the District of Elliston recommended that signs be placed in appropriate locations to warn motorists of the presence of older pedestrians and pedestrian crossings

REFLECTIVE MATERIAL

Tatiara District Council concentrated their campaign on the provision of reflective material to pedestrians. Tatiara Road Safety Committee conducted a telephone survey to assess the effectiveness of the 'Wear Something Reflective' campaign approximately twelve months after the campaign began. Of the 230 calls that were answered, 27.8% had seen pedestrians wearing reflective material, 26.9% thought that this made the pedestrians more easily seen and 95.2% of the respondents thought that all pedestrians should wear a reflective item at night.

The Committee concluded that it was reasonable to suggest that pedestrians should carry or wear some reflective material at night. From the other observations made, the Committee suggested that reflectors should be worn or carried as close as possible to the walking surface as this maximised the impact of the reflective material.

The Safety Kits distributed by Port Melbourne and South Melbourne contained:

- a reflective belt suitable for night or overcast days;
- reflective strips to be placed on canes, frames, shopping jeeps or handbags;
- brochures on pedestrian safety;
- a risk self-assessment;
- a safety quiz; and
- a map showing accident sites for older pedestrians in the district.

The City of Sale also distributed free, reflective visibility belts to older pedestrians.

BROCHURES, ADVERTISEMENTS, TELEVISION, RADIO, VIDEO, NEWSPAPERS

Brochures were a favoured way of producing educational material. Six councils distributed brochures produced by themselves or State traffic authorities and another three councils recommended that brochures addressing older pedestrian safety be produced for distribution. Brochures had the advantage of being easily incorporated in council mail-outs and could be left with community groups for distribution over time.

Television is usually the most expensive form of mass media though some councils were able to negotiate favourable terms for their older pedestrian material as community announcements. Queanbeyan City Council expressed some reservations about using regional television to publicise an essentially local campaign. While the television advertisements themselves were of a high standard and were attention grabbing, it was felt that the expense of this form of advertising might not be justified in terms of the penetration of the target, local audience. However, the local press in the region were enthusiastic supporters of the Council campaign and were still providing information and running stories consistent with the thrust of the campaign some time later.

Hobart City Council successfully used local print media and radio to promote the older pedestrian safety project and to solicit contributions to the consultative process designed to draw out community views on older pedestrian safety.

Hervey Bay City Council maximised the media coverage for their television advertisements by launching the campaign to coincide with school holidays. The advertisements designed to educate children about their responsibilities when riding skateboards and bicycles featured local residents in identifiable locations.

The 'Walk right into the 90s' video produced by the City of Maitland was made on location in Maitland with members of the Maitland Senior Citizens Association acting in the video. This enabled the local community to identify with video in a very personal way and to recognise specific traffic situations, by location. This was enhanced by Council providing a team of people to present the video and address local, older residents organisations. Council's subsequent advice has been that Council staff are confident that there has been a raised awareness of the issues in the district.

'You've come this far', the video and education kit produced by the City of Clarence, used members of the Clarence Senior Citizens repertory group filmed in familiar locations. The video is supplied with a presenter's information sheet, discussion notes and a quiz. The quiz addresses issues such as:

- road crossing techniques;
- accident vulnerability;
- selection of route;
- types of pedestrian facilities; and
- car stopping distances.

To further disseminate the information contained in the kit, it contains a section called 'Further suggestions for what else you can do'.

In Deniliquin, radio, television and print media were used to develop awareness of road safety issues in the older population of the area and to raise awareness, in the general population, of the problems faced by older pedestrians. The primary phase of the campaign was carried out up to and through Christmas 1989 and this was followed by further publicity around the Australia Day Weekend.

Deniliquin Council are confident that the campaign assisted in raising community awareness of issues which were being addressed at the time by the Deniliquin Aged Care Council. The results of the campaign were investigated by conducting Focus Groups with the aged, discussions with the Senior Citizens' Club and general community discussion. Council found that the program had a positive effect across the community and that it had been very successful in reaching the aged target group.

Action on older pedestrian safety issues continued after the conduct of the campaign with Council appointing a consultant to do a main street plan for the community.

Waverley Council accepted the recommendation to conduct an annual 'Pedestrian Road Safety Week' involving displays, newspaper releases and guest speakers.

DISPLAY STANDS

Display stands in popular local shopping centres were used by Port Melbourne and South Melbourne and Sale. The stands were used to publicise the conduct of the older pedestrian projects and to distribute educational material. The stands gave the opportunity for one-on-one discussions about the issues with older residents who might not be involved with any of the community groups participating in the community consultation process. By setting up stands in busy shopping centres, the available information was taken out into the community, reaching older pedestrians and others.

RISK ASSESSMENT

As a component of the public education campaign, Port Melbourne and South Melbourne distributed a self administered, risk assessment sheet. The assessment, to be completed by older pedestrians, was designed to show participants if they were at higher risk of becoming involved in a traffic accident because of changed associated with getting older. The assessment concentrated on eyesight, hearing and use of medication and alcohol.

6 CONCLUSIONS

As discussed in the National Road Safety Strategy, governments at all levels can implement programs that provide an environment that is favourable to safe road use. Ultimately though, road safety cannot be delivered by government programs. Road safety must be practised by everyone.

Local government is uniquely placed to initiate road safety measures that include community involvement, particularly measures that relate to pedestrian safety. Pedestrian activity operates at a local level. Local government, with its established community links, can encourage and develop the community's capacity to participate in road safety decision making. Local government has the capacity to respond to community perceptions and needs in a direct and sometimes immediate way, through engineering measures and education programs aimed at individuals and groups.

The information that has emerged from the demonstration projects has confirmed that many of the problems faced by older pedestrians in negotiating the changing road system are common across Australia. This means also that there is great similarity in the solutions and countermeasures proposed and implemented by councils.

Where community groups with older pedestrians members are involved in identifying problems and formulating answers with councils, there are substantial and ongoing benefits for the community and councils. The members of the groups and other older residents can have a real sense that their local government authority is interested in and committed to dealing with the everyday difficulties that older pedestrians face. The sense of powerlessness that some older residents clearly experience in negotiating roads and footpaths can be eased. This is significant given the reliance that older people have on walking as exercise, as well as being reliant on walking to gain access to community facilities and public transport.

By assisting in the process older pedestrians can develop a sense of ownership, within the community, of the education programs and countermeasures taken to improve their situation. By developing ongoing community consultation processes, councils can gain access to feedback from residents that will enable councils to respond effectively to problems as they appear. This can assist councils to direct scarce resources to areas of particular need.

Older residents within a community clearly have a well developed sense of their own requirements and difficulties in dealing with the road system. Most of the engineering works identified and discussed in this report were either a result of or confirmed by surveys of older residents. Similarly, interested older residents were able to indicate in what areas they needed information and education about how to successfully negotiate roads and footpaths. The consistent emergence of factors such as having insufficient time to cross at pedestrian/traffic signals and difficulties on negotiating poorly maintained footpaths, is significant for other councils that are concerned about the safety of older pedestrians.

The engineering and education measures taken by the funded councils to improve older pedestrian safety have emerged as being common sense solutions to the problems faced by an ageing community. Clearly the size and nature of the local government area and the size of its aged population affects the choice of programs and countermeasures that each council could consider. However, the range of measures identified in the demonstration projects, combined with the information on the demographics of the LGAs, provides a substantial base for other LGAs to consider.

For most LGAs that participated in the demonstration projects, a strategy that combines both engineering and behavioural approaches has emerged as the appropriate long term approach to older pedestrian safety. When this approach allows for input from the community, other government authorities and other sources of useful information, policies and strategies can evolve to meet the changing needs of pedestrians.

Road and traffic systems and related technology are areas of relentless change and development. The users of those systems, particularly those who are disadvantaged by age or disability, need special consideration. Clearly local government has a pivotal role to play in guaranteeing that such special consideration occurs.

The reports provided by the participating LGAs confirmed the usefulness of the demonstration projects for the councils and communities involved. The reports also indicate that the overall joint aims of the demonstration project have been realised. These were that the projects should serve as models for other councils and that they should involve the local community, particularly older residents, in considering the problems and formulating possible solutions.

Given the variations in location, size and conditions of the LGAs, the information discussed in this report provides a considerable resource for communities and councils interested in pedestrian safety.

7 FURTHER INFORMATION

FORS has a resource list of local government and other material relevant to older pedestrian safety. If you would like to know more, please contact the:

Federal Office of Road Safety
GPO Box 594
CANBERRA ACT 2601

Facsimile Number (06) 274 7922

8 REFERENCES

Australian Transport Advisory Council (20 December 1991) Draft National Road Safety Strategy

New South Wales Roads and Traffic Authority (September 1991) Road Safety 2000: The Strategic Plan for Road Safety in NSW

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Federal Office of Road Safety, Tim Ward (August 1990) Pedestrian Safety Paper presented at the 15th ARRB Conference Workshop