OLDER PEOPLE
INDEPENDENT MOBILITY FOR
LIVEABLE COMMUNITIES

by

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Independent mobility is necessary for a high quality of adult life.
In developed countries, the automobile has become the principal means of independent mobility.
TRAVEL BEHAVIOUR

• As people age beyond about 60 years old they tend to make fewer trips as car drivers;
• The trips they make tend to be shorter; and
• They avoid driving under stressful conditions, at night, in busy town centres and on highways.
In USA, about 90% of all journeys are made by cars, vans, SUVs and pick-ups
Car dependency causes real mobility problems for anyone who does not have access to a car
It does not have to be this way

In Europe, non-car transport and walking provide independent mobility into older age for many people
PERCENTAGE OF ALL TRIPS ON FOOT, BY BICYCLE AND BY PUBLIC TRANSPORT
NETHERLANDS 2001

- Walk, bicycle and public transport
- Walk plus bicycle
- Walk
- Bicycle

Age

Percentage of all trips
TRIPS PER YEAR BY WOMEN
BRITAIN 1996-98

- Car driver
- Car passenger
- Other
- Bus
- Walk

Age group: 50 - 54, 55 - 59, 60 - 64, 65 - 69, 70 - 74, 75 - 79, 80+

Trips per person per year
PERCENTAGE OF ALL TRIPS ON FOOT AND BY BUS - BRITAIN 1996 - 98

Age

Percentage of all trips

Women, walk, bus
Men, walk, bus
Women, walk
Men, walk

Walk
Bus
In Europe, people maintain or increase the number of trips on foot and by bus between the ages 60 and 75.

In U.S.A. the number of non-car trips reduces from age 55.
How do older Europeans remain mobile?

Independent non-car mobility requires a family of provision:

* A comprehensive and accessible network of safe pedestrian routes;
* Mass transit easy for everyone to use;
* A family of other public transport - Service Routes (community bus) - Taxis
* Special transport services – paratransit
Accessible and safe pedestrian infrastructure

At the heart of liveable communities
TYPICAL URBAN PEDESTRIAN INFRASTRUCTURE

Wide paths, good surface

Ramped kerb (now with tactile warning strip)
Ramped kerbs help everybody - England
PLENTIFUL SEATS AND RESTING PLACES

10% of adults cannot walk 400m without a rest;
5% cannot walk 50m without a rest.
SIDEWALKS THROUGHOUT HOUSING ESTATES

Grass trampled because path is only 1.7m wide and hedge overhangs

Ramped kerb
SUFFICIENT PATH WIDTH

This 1.7m path is barely wide enough: 1.8 – 2.0m would be better
Powered wheelchairs and scooters are used for local mobility
Much can be done to improve both comfort and safety for pedestrians.

Reducing traffic speeds and traffic volumes are priorities.
Traffic reduction and pedestrian streets
Pedestrian priority shopping street
York, England
Pedestrian median strip - Barcelona
Pedestrian median strip - Barcelona
Pedestrian priority - Lund, Sweden
Pedestrian street  - York, England
Pedestrian street – Jyväskyla, Finland
Pedestrian priority residential streets are increasing: Woonerfen in Netherlands, home zones in Britain
Woonerf in the Netherlands
A home zone, designed for people, not just traffic – Nottingham, England
Road crossings
Visibility is better if the sidewalk is extended

Pedestrians can see traffic

Drivers can see pedestrians
Light-controlled road crossing - England

- Tactile warning strip at ramped kerb
- Pedestrian call button for light-controlled crossing
- Audio signal
Light-controlled crossings (PUFFINs) that extend the time for slow walkers

Head to watch traffic

Head to watch pedestrians on crossing

Ramped kerb, tactile warning
Narrowed crossing with lights - England

Tactile warning and guide strip

Pedestrian phase call button

Audio signal
Central refuges, to divide a two-way road into two one-way roads
Pedestrian refuge on 2-way road

Ramped kerb, tactile paving
Side road junction with centre refuge
Light-controlled crossroads with central pedestrian refuges on each arm - England
Traffic calming to reduce speed
Road raised to sidewalk level at crossing

Crossing lights with pedestrian call button and audio signal

Tactile warning strip at edge of sidewalk
Side road speed table - London
Speed table in turning lane to slow turning traffic

Pedestrian crossing

Stop line

Pedestrian crossing with speed table to slow turning traffic
Speed table in turning lane to slow turning traffic - Netherlands
Chicane to reduce speed - England
Central refuge with chicane to slow traffic - Exmouth, England
Speed hump at village entrance - Denmark
Speed table at intersection - France
Speed control by camera in an urban area
Accessible mass transit
Since the mid-1980s, urban buses in Europe have had lower steps, better handrails and stanchions, good colour contrasts. This has made them easier for older people to use than the standard North American urban bus.
BUS WITH EASY ACCESS IN SWEDEN
Handrails each side of entrance, colour contrasted

Retractable lower step
Exit handrails extend outside bus when doors are open

Retractable lower step
EXTENDED HANDRAIL AT BUS EXIT
EXIT FROM A BUS

Easy with extended handrails    More difficult with inset handrail
Since the early 1990s, new urban buses and trams in Europe have been mainly low floor designs. These are easier for everybody to use, and can be made accessible to passengers using wheelchairs and baby buggies.
LOW FLOOR BUS - EASY FOR EVERYBODY

Bus kneels to reduce step height

No internal step at entrance or exit
Passenger in a wheelchair boards using the ramp

Call button for wheelchair ramp
Wheelchair unrestrained against backrest in safe compartment

Stanchion prevents sideways movement of wheelchair
A baby buggy does not need the ramp
Where the stop has been raised to near the height of the bus or tram floor, passengers flow out as if the vehicle and stop are continuous.
On low floor buses in service, there are usually not many wheelchairs, but there are a lot of babies!
Buses can get close to the kerb at bus stops if the kerb is extended into the road about 1.8 to 2.0 metres.

This type of stop can have the sidewalk raised to be level with the entrance to a low floor bus.
PROJECTING BUS STOP BOARDER OR CAPE

Sidewalk built-out about 2 metres at bus stop

- Sidewalk extended into road 1.8 – 2.0m
- Bus at stop
- Guard post with reflective markings

Parking

Shelter

9 to 13m
Platform raised at bus stop
Shelter
Roadway for bus

BUS STOP DESIGN FROM EU COST 322
LEVEL BOARDING AT A RAISED BUS STOP
Community buses or ‘Service Routes’ reduce walking distances to bus stops, allow more time for boarding, provide easy access and use specially trained staff.
COMMUNITY BUS / SERVICE ROUTES
LOW FLOOR MIDI-BUS USED ON SERVICE ROUTES IN SWEDEN & CANADA
ACCESSIBLE TAXIS
CONCLUSION
European experience shows that a combination of good pedestrian infrastructure, transit that is easy for everybody to use, Service Routes and taxis enable older people to remain mobile and independent, at least in urban areas.
OUT AND ABOUT IN A LIVEABLE COMMUNITY