International Transport Forum

Joint Transport Research Centre

OECD

Vulnerable Road User Safety: Children, Elderly Road Users and Pedestrians

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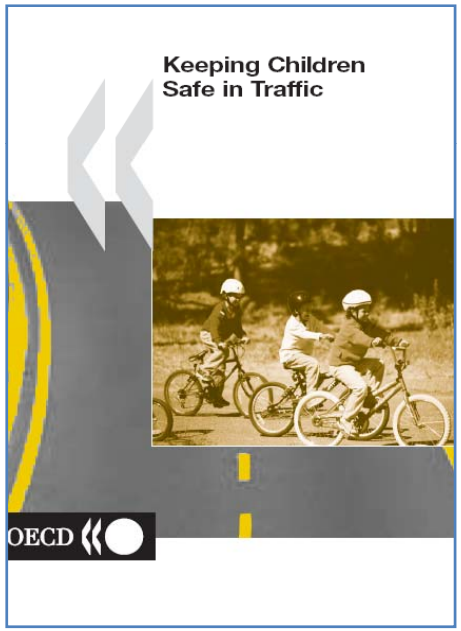
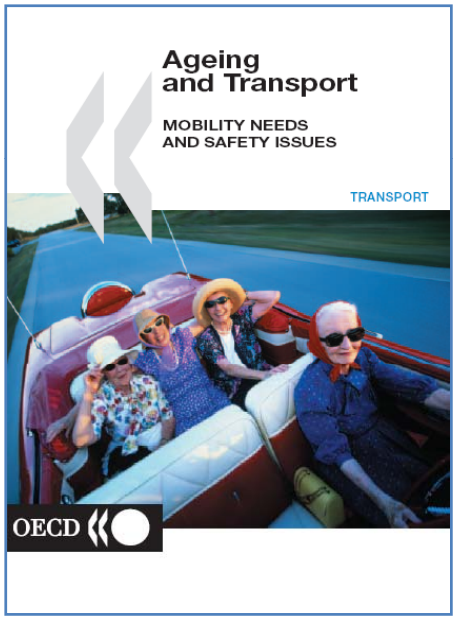
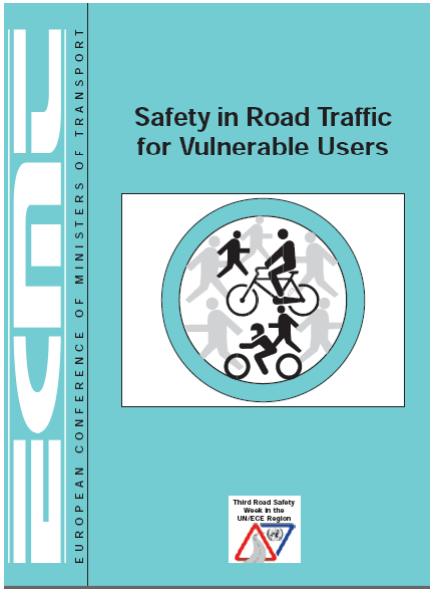
Three OECD Reports







.. And a new working group on Pedestrian safety and mobility started in 2008

Keeping Children Safe in Traffic

- ***An estimated 100,000 children in OECD countries died*** in road-related crashes since the OECD report on children's transport safety was published in 1983.
- The RTR Working Group on Child Road Safety was organised in 2001 to address this subject.
- The study aimed to reduce road trauma to children through the identification of trends and factors affecting their safety, and by the collection, dissemination, and promotion of the best road safety practices, programmes, policies, and counter measures available in OECD Member countries.

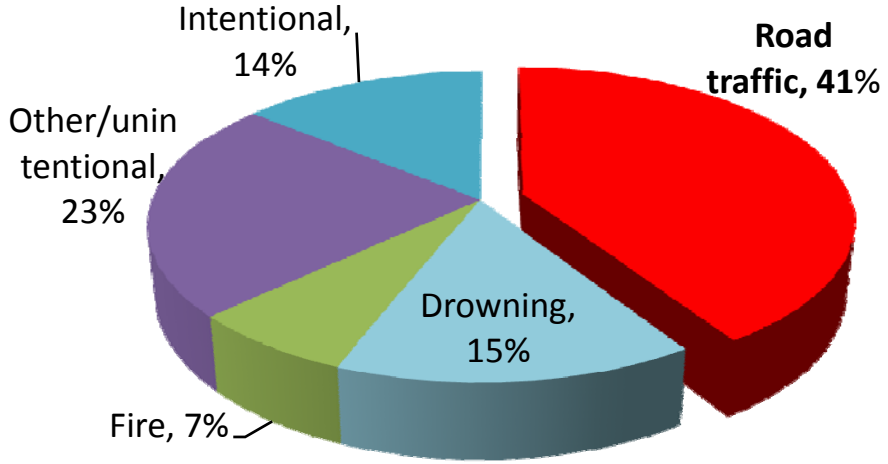
Approach/methodology

The study focused on four key areas:

- The scale and nature of the problem.
- Children's behaviour, abilities and education, training and publicity approaches.
- The role of the road environment in relation to child safety.
- The role of legislation and standards in road safety equipment and vehicles.

Scale and nature of the problem

- Road crashes accounted for 41% of child injury fatalities in OECD countries.
- There are large variations between OECD countries in the performance of child road safety.
- Worldwide **300,000 children** die in road crashes each year, half in Africa and S. E. Asia.



Key findings and Recommendations: Strategy

- Countries with a good child road safety record tend also to have a good overall traffic safety record characterised by having a well-established and integrated approach.
- The best performing OECD countries have adopted a holistic approach using a wide variety of measures.
- Road Safety policy should include specific strategies and targets for improving child safety. For example in GB the 50% target for child KSI was achieved in 10 years.

Key findings and Recommendations: Education, training and publicity

- Education, practical training, and publicity encourage safe behaviour by influencing knowledge and attitudes, and providing young people with the skills and strategies to manage risks.
- Keeping children safe is everyone's responsibility - parents, schools, drivers, policy makers, planners, manufacturers.
- Drivers need to understand the limitations of children's behaviour in traffic.
- Driver training and publicity campaigns should be used to shift the focus of responsibility from children to drivers.

Key findings and Recommendations: The built environment

- Young children need space for congregating, playing and physical activity.
- Older children require safe and secure routes to access school, playgrounds and other recreational destinations, both as pedestrians and as cyclists.
- Traffic engineers and planners should take children's needs and abilities into account and incorporate them into road plans and traffic designs.
- Cyclists and pedestrians need more priority through the use of traffic calming and facilities for walking and cycling.

Key findings and Recommendations: Vehicles and safety equipment

- Children in cars should use suitable **restraints** for their age and size.
- ***Vehicle design*** **-** passive safety systems such as crumple zones and safety door and window locks. + more attention to protecting pedestrians and cyclists.
- ***Cycle helmets*** should be positively promoted, particularly among children, as part of an integrated approach to safer cycling.

Seat belts and child restraints save lives

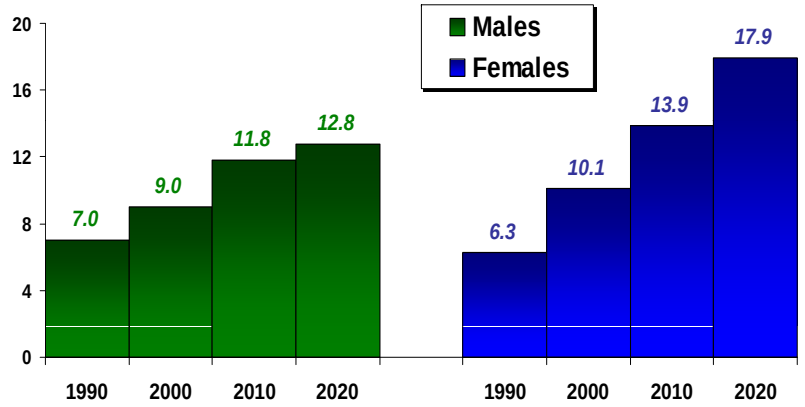
- High rates of use of child restraints in W. Europe e.g. over 90% in GB.
- Many countries do not have information on wearing rates and do not have legislation.
- US data show that over 70% of child deaths could be prevented if suitable restraints were in use.
- Legislation must be supported by long running education and publicity campaigns and enforcement and effective penalties.

Child safety: conclusions

- Traffic calming and facilities for safe walking and cycling can reduce crashes by around a third.
- Child restraints can reduce deaths by 70% if correctly fitted and used.
- A targeted strategic approach that prioritises child safety and shifts responsibility from children to drivers is needed.

Ageing and Transport: Mobility needs and safety issues

- Older people are the fastest growing group of drivers.
- Older drivers and passengers have shown most increase in fatalities in the last decade.
- Older drivers do not disproportionately contribute to pedestrian fatalities.
- Older vehicle occupants are frail and are more likely to die in a crash.



Drivers aged 70+

Key findings and recommendations: vulnerability

- Age-related disabilities affect the use of other modes of transport earlier than private car driving.
- Older drivers as a group do not have higher accident involvement than other age groups; their overrepresentation in accident statistics is due to increased risk of injury and death and certain biases in measurement.
- The main safety problem: their increased physical frailty and heightened vulnerability to injury and death if involved in accidents.

Key findings and recommendations: support for older drivers

- Car driving elderly should be encouraged and supported in their effort to prolong their driving career as long as possible; age-based mandatory driver screening practices should not be applied.
- Diagnostic and rehabilitation efforts should focus on drivers with significant functional impairments.
- Community based referral system for safe driving assessments.
- Define more clearly and support driver assessment and rehabilitation approaches.

Key findings and recommendations: infrastructure and vehicle design

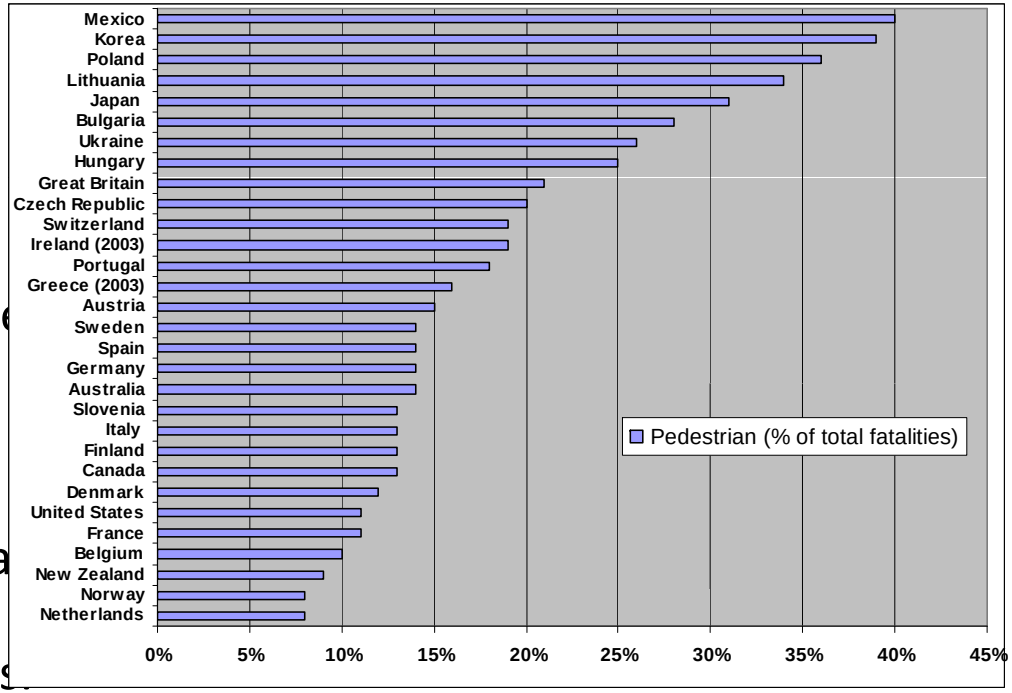
- Infrastructure design focused on technical efficiency and low costs is no longer sufficient; standards based on fit young males are inappropriate in an ageing society.
- Provide safer roads for pedestrians and users of scooters and wheelchairs. In W Europe 45% of pedestrian fatalities are aged 65 or more.
- More forgiving and predictable road design to reduce need to make complex decisions and perform time-related tasks.
- Vehicle design should be improved in terms of useability, occupant protection, and technical aids.

Conclusions:Transport Policy Priorities for an Ageing Population

- Mobility is the key issue. Support and funding to enable lifelong mobility including continuing to drive safely.
- Provision of suitable transport alternatives to the private car. Options include accessible buses, taxis, Dial-a-Ride, mobility scooters and powered wheelchairs.
- Involvement of older people in policy development.
- Educational campaigns to promote maximum mobility and safety for older people.
- Improvements in infrastructure, vehicle design, etc. that benefit the elderly will benefit everyone.

Safety of Vulnerable Road Users: Pedestrians

- In most OECD countries pedestrians are the second largest group of road fatalities.
- Road networks have largely been designed for the use of motorised traffic at the expense of vulnerable road users.
- Progress has been made in OECD countries to adapt the environment in residential area and city centres to provide better for vulnerable road users.



Pedestrian safety: key conclusions

- More equitable allocation of road space and greater priority for vulnerable modes.
- Reducing vehicle speeds and promoting traffic integration in built-up areas through traffic calming and traffic management.
- Vehicle design measures such as speed limitation technology and design of vehicle fronts.

Conclusions

- All three reports are consistent in their emphasis on a holistic approach combining infrastructure measures with vehicle design and behavioural measures.
- More emphasis in the child safety report on the importance of strategic road safety planning.
- Clear emphasis on the need to shift responsibility for safety away from vulnerable road users, especially children and the elderly, towards drivers.
- Strong role for infrastructure and traffic and speed management.