

Traffic Medicine – Promoting Safe Mobility for Drivers with Medical Conditions

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REDUCING
OLDER PEOPLE'S
DEATHS ON
EUROPEAN ROADS

PIN Flash Report 45

November 2023



Coláiste na Tríonóide, Baile Átha Cliath
Trinity College Dublin
Ollscoil Átha Cliath | The University of Dublin



European Transport Safety Council



55%

OF OLDER PEOPLE ROAD DEATHS ARE VULNERABLE ROAD USERS



ONE THIRD

OF OLDER PEOPLE ROAD DEATHS ARE PEDESTRIANS



16%

OF OLDER PEOPLE ROAD DEATHS ARE CYCLISTS

1 OUT OF 2 OLDER WOMEN KILLED ARE PEDESTRIANS

Key Messages

- Older drivers safest group of drivers
- Do not drive off the road by inappropriate screening measures which are ineffective and harmful
- Ensure that doctors are trained in traffic medicine to support drivers with medical conditions



Member States shall reduce the periods of administrative validity set out in the first subparagraph, points (a) and (b), to five years or less for driving licences of holders residing on their territory having reached the age of 70, in order to apply an increased frequency of medical checks or other specific measures, including refresher courses. This reduced period of administrative validity shall only be applied upon renewal of the driving licence.

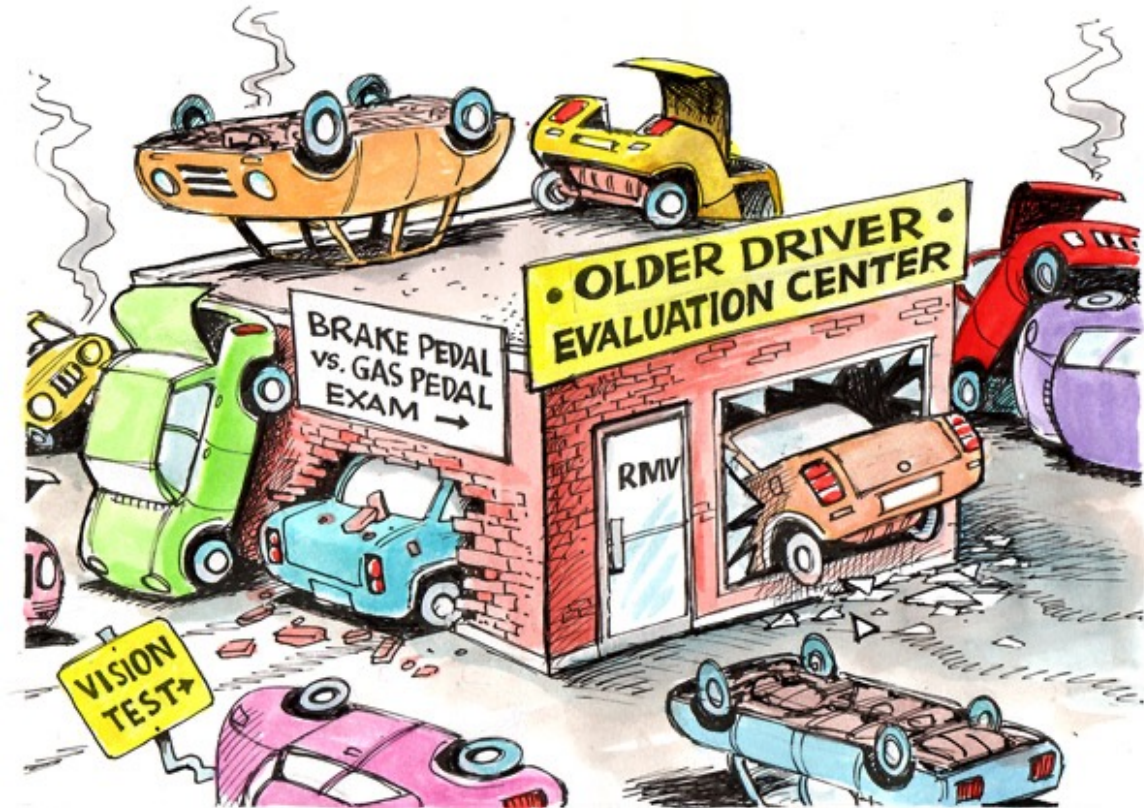
Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on driving licences, amending Directive (EU) 2022/2561 of the European Parliament and of the Council, Regulation (EU) 2018/1724 of the European Parliament and of the Council and repealing Directive 2006/126/EC of the European Parliament and of the Council and Commission Regulation (EU) No 383/2012

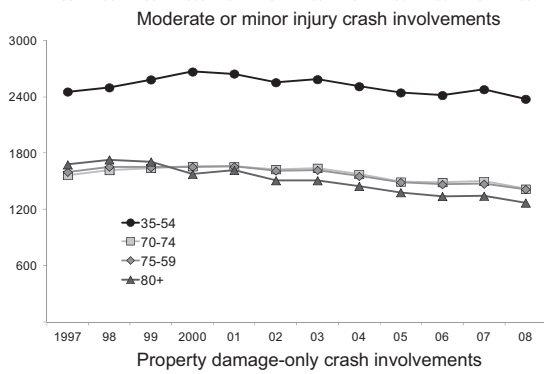
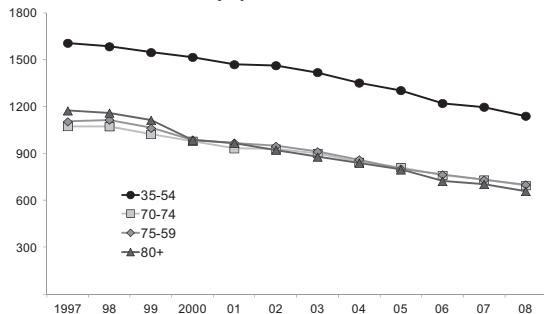
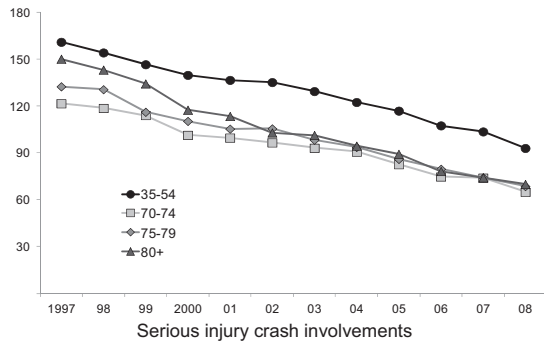


The myth that won't die...



DAVE GRANLUND © www.davegranlund.com





Why have fatality rates among older drivers declined? The relative contributions of changes in survivability and crash involvement

Jessica B. Cicchino*



Why?

- Failure to have adequate expert medical advisory input to driver licencing systems
- Fallacy of increased crashes per mile
- Fragility and current in-car safety measures
 - Less crashes, more deaths



What doesn't work....

- Routine medical/vision/psychological examinations
- Older driver screening – increased deaths in vulnerable road users
- Older driver retraining – overconfidence and increased accidents
- Relying only on lay driver licencing agency personnel



What works?

- Developing good guidelines for clinicians and public
- Training in basic traffic medicine: doctors and healthcare workers
- Information resources for the general public
- Routine itemized self-declaration of relevant medical conditions at licence application and renewal
- Framework for on-road assessments to support clinical decisions
- Restricted licences



Scheme

- Don't screen whole populations
- Do provide appropriate advice in the clinical setting where a person presents with a medical condition



What is Traffic Medicine?

- A relatively new specialism embracing all those disciplines, techniques, and methods aimed at reducing death and injury inflicted by traffic crashes
- Also enabling /rehabilitative in trying to ensure that transport mobility is not hampered, or rendered unsafe, by remediable illness or functional loss.



Complex!

- Medicine
- Allied professions
- Traffic Psychology
- Transportation Policy
- Road Safety
-



...a reduction of approximately 45% in the annual rate of crashes per 1000 patients

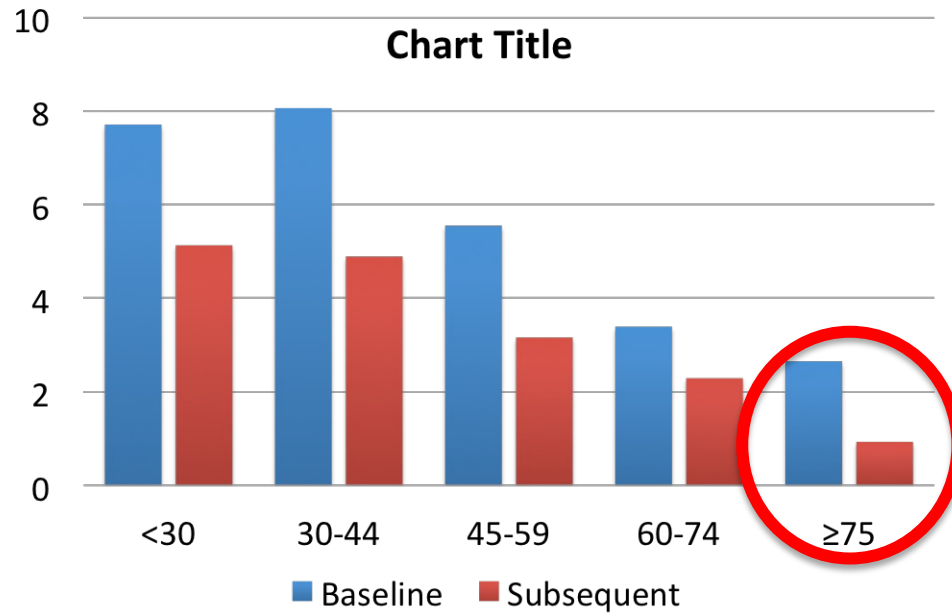
The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Physicians' Warnings for Unfit Drivers and the Risk of Trauma from Road Crashes

Donald A. Redelmeier, M.D., M.S.H.S.R., Christopher J. Yarnell, A.B.,
Deva Thiruchelvam, M.Sc., and Robert J. Tibshirani, Ph.D.





Crashes/1,000/year by age



Clear Vision – Key!

Traffic Injury Prevention, 9:367–378, 2008
Copyright © 2008 Taylor & Francis Group, LLC
ISSN: 1538-9588 print / 1538-957X online
DOI: 10.1080/15389580801895285



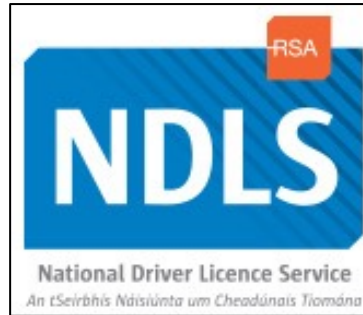
It Cannot Be All about Safety: The Benefits of Prolonged Mobility

JENNIFER OXLEY and MICHELLE WHELAN

Accident Research Centre, Monash University, Melbourne, Australia



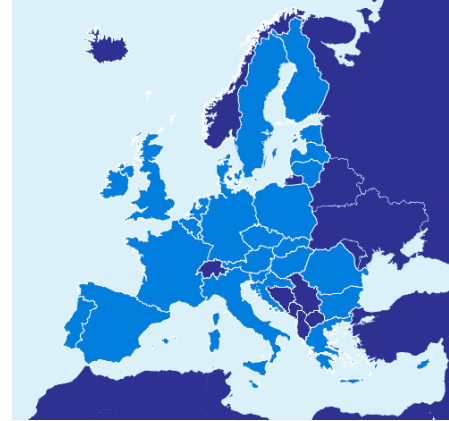
Shared responsibilities – Key!



Europe has made a good start!



No apparent harmonization between 50 states
(Lococo et al, 2017)



Progressive engagement with EU-wide Medical Fitness To Drive
2006: General
2009: Diabetes, vision, epilepsy
2014: Obstructive sleep apnoea
2016: Cardiology



Sláinte agus Tiomáint

Medical Fitness to Drive Guidelines

(Group 1 and 2 Drivers)

April 2022

RSA



https://www.ndls.ie/images/PDF_Documents/NDLS_Sla%CC%81inte_%20Tioma%CC%81int_2022_v8.pdf

Impact of New Guidelines and Educational Program on Awareness of Medical Fitness to Drive Among General Practitioners in Ireland

AMILA KAHVEDŽIĆ¹, REGINA MCFADDEN¹, GERRY CUMMINS², DAVID CARR³, and DESMOND O'NEILL¹

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³*Division of Geriatrics and Nutritional Science, Washington University, St. Louis, Missouri*



Medical interventions already making a difference..

- General fitness
- Rehabilitation
- Medications
- Cataracts
- Car Adaptations



Process

- Doctors assess supported by guidelines and training
 - \pm OT/On-road assessment
- Low threshold second opinion
- Advise driver
- Driver advises DMV for specified conditions
- DMV requests medical report
- Process for noncompliant and hazardous



Why the patient's own doctor is key

- Multi-morbidity
- Estimate of prudence
- Encourage second opinion and further assessment
- Guidelines and training protect



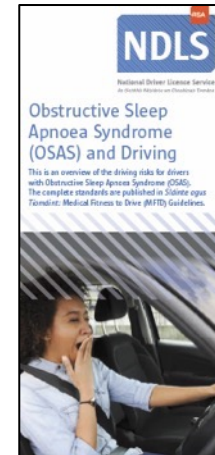
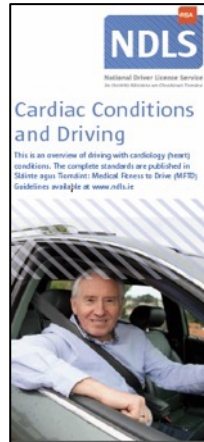
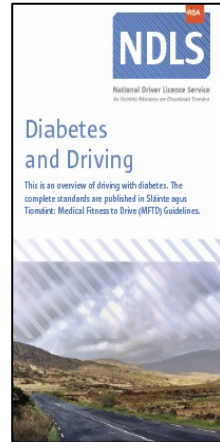
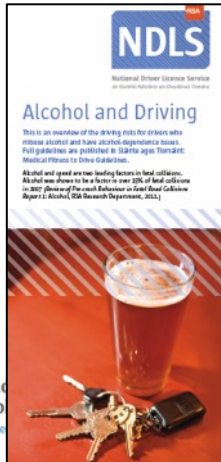
Main issues

- Suddenly disabling
 - Syncope, epilepsy, ICDs...
- Physical constraints
 - Parkinsonism, hemiplegia, vision
- Impaired self-regulation
 - Imprudence, psychiatric illness, cognitive impairment



Raising awareness about medical conditions and driving

- Alcohol
- Diabetes
- Cardiac Conditions
- Epilepsy
- Obstructive Sleep Apnoea
- Emergency Department



Self-declaration at application/renewal

- Itemised yes-no of 27 relevant medical conditions
- If yes, medical certificate
- Statutory offence to mis-declare



An international study of the quality of national-level guidelines on driving with medical illness

M.J. RAPOPORT^{1,2}, K. WEEGAR³, Y. KADULINA⁴, M. BÉDARD^{5,6}, D. CARR⁷,
J.L. CHARLTON⁸, J. DOW⁹, I.A. GILLESPIE¹⁰, C.A. HAWLEY¹¹, S. KOPPEL⁸,
S. MCCULLAGH^{12,13}, F. MOLNAR^{3,4}, M. MURIE-FERNÁNDEZ¹⁴, G. NAGLIE^{2,15},
D. O'NEILL¹⁶, S. SHORTT¹⁷, C. SIMPSON^{18,19}, H.A. TUOKKO²⁰, B.H. VRKLJAN¹³ and
S. MARSHALL^{3,4}

MFTD and directives

1. Develop EU Clearing House on evidence on medical fitness to drive
2. Develop permanent European Commission Working Group on Traffic Medicine

CIECA Report Medical Fitness to Drive Final summarising report

Final / August 2020

CIECA Topical Group on Fitness to Drive
Subgroup 2: Setting Standards for the Evaluation of Medical Fitness to Drive

CIECA
The International Commission for Driver Testing
Avenue de Tervueren 36-38 | 1040 Brussels | info@cieca.eu

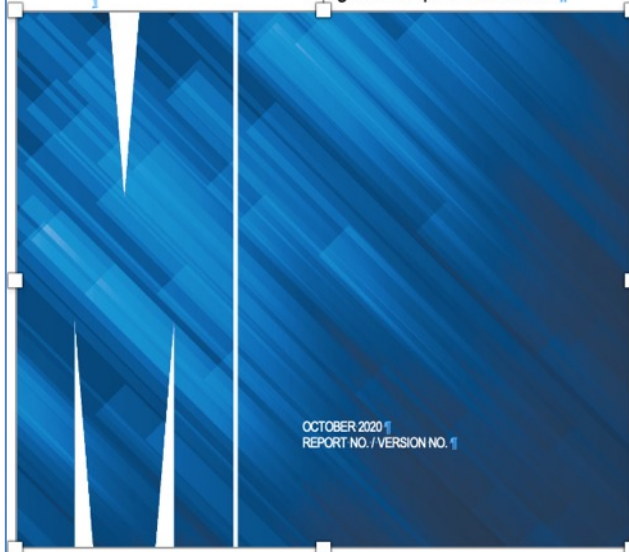
**INFLUENCE OF CHRONIC ILLNESS ON CRASH
INVOLVEMENT OF MOTOR VEHICLE DRIVERS:
2ND EDITION**

by

Judith Charlton
Sjaanie Koppel
Morris Odell
Anna Devlin
Jim Langford
Mary O'Hare
Chelvi Kopinathan
Dale Andrea
Geoff Smith
Bereha Khodr
Jessica Edquist
Carlyn Muir
Michelle Scully

November, 2010

**INFLUENCE OF CHRONIC ILLNESS ON
CRASH INVOLVEMENT OF MOTOR
VEHICLE DRIVERS: 3RD EDITION**
Integrated Report **<DRAFT>**



OCTOBER 2020
REPORT NO. / VERSION NO.

INFLUENCE OF CHRONIC ILLNESS ON MOTOR VEHICLE CRASH RISK
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An International Approach to Enhancing a National Guideline on Driving and Dementia

Mark J. Rapoport^{1,2} · Justin N. Chee^{1,2} · David B. Carr³ · Frank Molnar^{4,5} · Gary Naglie^{2,6} · Jamie Dow⁷ · Richard Marottoli⁸ · Sara Mitchell^{1,2} · Mark Tant⁹ · Nathan Herrmann^{1,2} · Krista L. Lanctôt^{1,2} · John-Paul Taylor¹⁰ · Paul C. Donaghy¹⁰ · Sherrilene Classen¹¹ · Desmond O'Neill¹²



The way forward...

- Engage with European medical organisations to develop traffic medicine education in their areas of practice
- Develop European and national expert medical advisory boards to support national driving licencing agencies and the European Commission
- Engage with older people's advocacy to promote effective strategies





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