

Fit to Drive

3rd International Traffic Expert Congress
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Welcome

Summary, Conclusions and Perspectives

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Primary Objective of the FTD Conferences

- contribute towards halving road traffic fatalities within the EU to 25000 by 2010 +
- create a forum for discussing the development of fitness to drive requirements:
 - best possible support for individual mobility
 - fulfilling the safety demands of society
- co-operation of international organizations
- communication and co-operation of scientists, driving trainers, administrators, police and other professions involved

Brief Overview of Past Meetings

- Berlin 2006 ⇒ (Nickel & Sardi, 2006)
- Vienna 2007 ⇒ (Risser & Nickel, 2007)
- Conclusions from past meetings: Focus on driver training, demerit point systems, enforcement, drink & drug driving, individual driver assessment and rehabilitation

Main Topics Prague 2008

General

Current situation of Road Safety Figures in the EU

WHO Activities Improving Road Safety in Europe

Worldwide Trends in Impaired Driving: Experience & Progress

DRUID Intermediate Status Report

PORTARE: easier mobility for handicapped drivers

Formal Standards Shaping Informal Behavior Norms

Lives Lost – Families Shattered

Driver Fatigue

Diabetes Mellitus

Vehicle Industry and Road Safety

Traffic Psychology in the Czech Republic

Special Topics

Main Topics Prague 2008

Driver Education and Training

Driver Training of Tomorrow

Two Phase System in Switzerland

Driver Training in Greece

Demerit Point Systems (DPS)

DPS in Latvia

DPS in Poland

Potential of DPS in Sweden

Psychological Measures: German DPS

Assessment of Fitness to Drive in Finland

Assessment and Rehabilitation

Assessment and Rehabilitation of Aging Related Diseases

Education vs Punishment: Speed Rehab in the UK

Evaluation of Rehabilitation Programs

General – 1 –

- The Current Situation of Road Safety Figures in the EU

Top priority for almost immediate results

- Enforcement varies considerably between EU countries
- Traffic offences by non residents (a significant proportion of offences in many countries) are rarely sanctioned - legal and technical instruments are lacking
- Globally, the EU should strengthen its efforts to reach the “50%” target by 2010
- Integrated approach & shared responsibility:
 - Good co-operation of various Gov^t Dep^{ts} (Justice, Transport, Police, Health) is necessary
 - More commitment from the “civil society” (European Road Safety Charter: 1000 signatories)
- 4th Road Safety Action Programme to be prepared

„I appreciate FTD as a form of harmonization in the EU“

General – 2 –

WHO Activities to Improve Road Safety in Europe:

“3.6 million years of healthy life lost due to premature death or disability” – young victims overrepresented. Iceberg phenomenon: one road traffic fatality means more than 100 affected. Mortality rate in states differs dramatically.

“Improve enforcement”: Speed control, drink driving, licensing measures. *First Global Ministerial Conference on Road Safety in 2009 (UNGA A/62/L43 Resolution Improving Global Road Safety)*

General – 3 –

World Wide Trends in Impaired Driving: Experience and Progress

- Significant progress in reducing impaired driving has been made
- Improved enforcement as an important component
- Future progress may rely on developing new technologies
- important role of advocacy groups in bringing needed attention and motivating change

General – 4 –

DRUID Intermediate Status Report

- Enhance knowledge about influence of psychoactive substances on driving – overview of prevalence completed
- Establish risk thresholds for relevant psychoactive substances – evaluation of on-site screeners finished; review of current classification efforts completed
- Information and guidelines for various key actors and drivers
- Develop recommendations for legislation, enforcement and rehabilitation measures (literature analysis completed; feedback study results show: Rehab interventions highly accepted)

Special Topics – 1 –

PORTARE: Ease mobility for handicapped drivers

- Fulfil the minimum medical standards
- Pre drive and on-road driving assessment
- Car Adaptation Protocol Initiative
- Vehicle Inspection
- Driver/vehicle evaluation
- Finalize by end of 2008/2009

Special Topics – 2 –

Formal Standards Shaping Informal Behavioral Norms

- Goal of Study: optimize police enforcement strategies
- Compliance depends on various enforcement factors
- Traffic regulations = formalized social norms to control road user behavior
- Road users develop informal behavioral norms e.g. through perception of conspicuous speeders
- Study revealed that effective enforcement strategies must be designed according to period of time, length of enforced road stretch and other criteria



Special Topics – 3 –

Driver Fatigue

- Fatigue: safety risk (up to 20% of crashes sleep related)
- Recognize need for break? Study: *Take a walk, turn on radio, open window, have coffee, initiate passenger conversation*
- Study: Sleepiness experience motivates nap taking: professional drivers males ans age 46 – 64
- In-car monitoring preferred by risk experience, non-prof drivers, males
- Rumble strips: only short time effect

Special Topics – 4 –

Diabetes Mellitus (DM) and the ability to drive

- DM patients are not principally unable to drive a vehicle
- Individuals displayed critical results
- Limitations of study (part of IMMORTAL) were pointed out

Recommendations

- Periodical medical and psychological assessment of DM drivers
- Training programs for DM drivers
- Similar measures applied to DM 2 drivers on medical doctors proposal

Vehicle Industry and Road Safety

1. Current situation in the Czech Republic
 - significant positive effect in reducing accidents, injuries and fatalities after introduction of penalty point system
 - effect wore off after one year – cause: lack of enforcement

2. Role of car makers
 - safe cars
 - accident research
 - prevention campaigns
 - Road safety projects
 - Projects aimed at children

Traffic Psychology in the Czech Republic

Overview of historical development

Description of the role of the Czech Ass'n of Traffic Psychologists:

training, information updates, counseling, participation in legislation process, international activities (EFPA)

Road Traffic Act of 2006

- positive effects through enforcement
- clinical vs traffic psychologists?

Improvement needed

- too many chances to avoid sanctions
- Demerit point system primarily repressive – lack of assessment and rehab

Driver Training and Education -1 –

Driver Training of Tomorrow

- Environmental protection (ECO driving, pollution and noise reduction)
- Driver assistance systems
- Number of senior drivers and their changing needs

will *influence future training*

....today's seniors: fitter, more competent and more ambitious...

The Two Phase System in Switzerland

- Introduction: December 2005
objective: reduce accident rate of novice drivers and shape driver attitudes
- Provisional driving license + two mandatory follow-up courses:
- Phase 1: driving test – learner's license
- Phase 2: provisional license, two follow-up courses, no serious offenses
- Topics in follow-up courses: Alcohol, licit and illicit drugs, practical training, mutual assessment of driving style, setting up a driver's profile
- Instructors: Licensed driving or traffic instructor with special training
- Quality assurance implemented, evaluation planned

Driver Training in Greece

- Weaknesses of system outlined:
theoretical training too short; low risk of failure in exam: small number of questions, trainees learn answers by heart, insufficient duration of driving test, novice drivers not motivated for training
- Stricter exam necessary
- Requirements for driving trainers are inadequate and should be changed

Secondary Prevention: Demerit Point Systems -1-

Latvia

- 177 fatalities per million inhabitants in 2006 (CZ: 104, NL: 45)
- detailed description of offences, significant increase of fines
- Range of demerit points for single offence from 1-8 according to severity
- Maximum number of demerit points: 10 for novice, 16 all other drivers (1 year disqualified)
- DUI (0.5 – 1.0 mg/ml) : 8 demerit points, € 220-440, disqualified for 3-6 months
- 4, 8, 10, 12 demerit points result in administrative action
- Twice 10 or 16 points rsp. Within 10 years: 5 years of disqualification

Secondary Prevention: Demerit Point Systems -2- Poland

- Introduced in 1993 with significant change until today; goals of system: prevention, education, selection
- Drivers with offences are registered; demerit points range from 2 – 10 according to severity;
- Novice drivers (until one year after licensing): 20 points lead to new licensing procedure (experienced drivers: 24 points)
- Experienced drivers may reduce number of points through special training (conducted by police officers and psychologists)
- 80% of drivers accept the chance of reducing their points via course
- Changes of system proposed: e.g. special course for impaired drivers, mandatory training for high risk offenders etc.

Secondary Prevention: Demerit Point Systems -3-

German demerit point system: Psychological and educational measures

- The German DPS has been referred to twice before: FTD Berlin and FTD Vienna
- DPS rules warning letter and chance of voluntary seminar: up to 4 points deleted
- Participation in seminar mandatory at level 14-17 demerit points – no deletion of pts
- At level 18 demerit points: withdrawal of license
- Objective of seminars: help develop attitude of risk awareness
- Method: discussion of offences, observe each others driving style, analyze faults
 - - special seminars for DUI offenders: prepare separation of drinking from driving
- Thus, enhancing safety means initiating behavior change of negligent drivers

Secondary Prevention: Demerit Point Systems -4-

Potential of a Demerit Point System in Sweden

- Overview of current state of knowledge + study visits to selected DPS-countries
- Behavioral perspective analysis of DPS:
 - A Swedish system should have a traffic safety potential if it (Nolen, 2008)
 - is coordinated with enforcement that give high perceived risk of detection
 - is seen as a complement to the regular withdrawal of the license
 - includes written warnings and rehabilitation courses
 - is simple, clear and give fast feedback to drivers
 - has wide public acceptance
 - has a small number of penalty points

Secondary Prevention: Assessment & Rehabilitation

Psychological Assessment of Fitness to Drive in Finland

- Medical expertise forwarded to police authority: decision on license
- Physician may consult (neuro)psychologist on cognitive skills
- Target group: patients with neurological disorders
- Tests used: Cambridge Neuropsychological Test Automated Battery
- Study: young license applicants and senior drivers with disorders compared as to license recommendation: smaller number of recommendations for novice
- No difference in young and older patients as to simple reaction time, effectiveness in multiple-choice reactions and perception or memory

Secondary Prevention: Assessment & Rehabilitation – 1 -

- 80-90% of older population in NL will hold drivers license in 2040
- Availability of transportation 5th best predictor of well-being for the elderly
- Definition of driving behavior, driving skill and fitness to drive: *driving skill and driving behaviour can often compensate impaired fitness*
 - *need for valid and reliable assessment*
 - *need for evidence based rehabilitation methods*
- Conclusions: no specific cut off scores for unfitness, specify diseases and impairment requiring specialist multidisciplinary assessment and rehabilitation, and “research, education and training in the areas of assessment and rehabilitation of practical fitness to drive is urgently required”

Secondary Prevention: Assessment & Rehabilitation – 2 -

Speed Rehabilitation

Speed awareness courses offer

- Increase the public acceptability of existing speed control
- Justify the expansion of existing speed control
- Enable the threshold for enforcement to be lowered to a more appropriate level in a manner that is publicly acceptable
- Provide the justification for future speed control

Secondary Prevention: Assessment & Rehabilitation – 3 -

Evaluation of Rehabilitation Programs

- AAP course evaluations in 2003, 2006 and 2008
- Evaluation according to model of Kirkpatrick (reaction, learning, transfer, results)
- Knowledge transfer stable over long period of time, positive results on all stages
- Transtheoretical Model of Change (TTM) to be applied

Conclusions/Perspectives

- (1) Presentations on EU and WHO activities, driver training, worldwide trends in impaired driving, the DRUID project, the PORTARE project, on shaping behavioral norms, fatigue, diabetes, demerit point systems as well as assessment and rehabilitation have demonstrated complexity, solutions and future strategies of tackling driving fitness.
- (2) Progress in many areas, problems to solve, recommendations made, research to conduct: the path has to be followed.
- (3) Presentations underlined the leading role of enforcement, education and training, increased attention to behavior as the prime cause of accidents and fatalities.