ROAD SAFETY MANAGEMENT AND DATA SYSTEMS

DR. JOSEF MIKULIK
(mikulik@cdv.cz)

DIRECTOR
TRANSPORT RESEARCH CENTRE (CDV)
BRNO, CZECH REPUBLIC

CHAIRMAN
IRTAD GROUP
JTRC OECD/ECMT

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1. Global Scope of the Problem

2. Reliable Accident Data - Key of Successful Road safety management

3. International Comparisons

4. The most Important International Road Traffic Accident Databases

5. Disaggregated Databases

6. Aggregated Databases

7. IRTAD

8. Conclusion
1. Global Scope of the Problem

2002 estimation:
- 1.2 million people killed
- 50 million people injured
- US$ 518 billion economic costs
- 1% - 2% of GDP

90% of deaths in low and middle-income countries

2020 prediction: increase by 80%
Ranking causes of the global burden of disease

ROAD TRAFFIC INJURIES

1990 – 9th rank

2020 – 3rd rank

(war - 8th, HIV – 10th)

- not only the responsibility of transport sector
- whole society has to be involved
- social and public health issue
2. Reliable Accident Data - Key of Successful Road safety management

Why data are needed?

- to know the scope of the problem
- to evoke a public awareness
- to discover causes of crashes
- to explore ways to prevent crashes
- to develop measures to reduce severity of crashes
Who needs the data?

Users:

- politicians
- decision makers
- citizens
- responsible bodies
- professionals
- researchers
The scope of information depends on the level of their users:

- International
- National
- Regional
- Local

- Comparison of safety level
- Safety strategy
- Safety programmes
- Implementation
Accident data parameters

- general information (location, time)
- consequences
- accident collision type
- road users (type, age, sex, seat belt use, alcohol influence, etc.)
- road characteristics (type, class, surface conditions, etc.)
- weather and traffic conditions (rain, snow, etc.)
- vehicle characteristics (type, age, etc.)
Exposure data

Needed for more objective international comparisons

- population (age pyramid)
- vehicle fleet (category)
- vehicle kilometres (road, vehicle type)
- driver population (category, age)
- fuel consumption
Basic data parameters

- accuracy
- complexity
- availability
- uniformity

standardization
Standardization on national level

- basically no problem
  (regional and local comply with national ones)
- but there exist different databases
  - police
  - road administration
  - hospitals
  - insurance companies

agreement on national standard
3. International Comparisons

International comparisons of national road traffic accident numbers are vital important

They offer:

- comparable picture about national accident situation
- position among other countries
- indication of urgency for international support
- information on development and progress
- better identification of weak areas in safety system
- differences in safety level of users and roads
differences as colourfull as the world itself
example: persons killed
(0, 1, 3, 5, 10, 30, 365 days)
agreement on international standard definitions
adapt or adopt international standards
develop conversion coefficients

Example of standardization:
UNECE + EUROSTAT + ECMT agreement on
GLOSSARY FOR TRANSPORT STATISTICS
4. The most Important International Road Traffic Accident Databases

CARE, FARS, ECMT, UN ECE, EUROSTAT, WHO, IRF, IRTAD

Differences in:
- needs and purpose
- information structure
- scope of information
- way of data collection
- data processing
- publishing and availability
- regional coverage
CARE
Community Database on Accidents on the Roads in Europe

- disaggregated database of all accidents collected by member states
- 15 EU member states (+10)
- started in 1993
- interface for transfer of national data
  - 38 variables
- fatalities corrected to 30 days

Availability:
- direct access for nominated representatives of member states
- http://europa.eu.int/comm/transport/care
FARS
Fatality Analysis Reporting System

- managed by National Highway Traffic Safety Administration (NHTSA)
- USA territory
- includes disaggregated data on individual accidents
- since 1994

Availability:
- by query
part of transport statistics

- 42 European states + USA, Canada, Australia, Japan, New Zealand, Korea, Morocco

- includes
  - killed
  - injured
  - disaggregated according road users
  - injury accidents

- indicators related to vehicle fleet
- fatalities - correction factor

Availability:
- annually: Road Safety in Europe
- bi-annually: Statistical Report on Road Accidents
- http://www1.oecd.org/cem/stat/accidents
part of statistics

52 European states + Israel, USA, Canada

includes

- killed
- injured
  - disaggregated according road users
- injury accidents
- vehicle fleet
- road network
- population

fatalities – no correction

Availability:

- Statistics of Road Traffic Accidents in Europe and North America
EUROSTAT

- part of statistical activities
- 15 EU member states (+10)
- includes
  - killed
  - injury accidents

Availability:

- annually Energy and Transport in Figures (Chapter Transport Safety)
part of WHO Statistical Information System (WHOSIS)

involves registered deaths distributed by
- cause
- sex
- age

all UN (WHO)

mostly 1995-2000

fatalities corrected to 30 days

Availability:

http://www3.who.int/whosis/menu.cfm?
path=whosis,inds,mort&language=english
International Road Federation

- road accident database
- 180 members states
- includes
  - killed
  - injury
  - injury accidents
  - road network
  - vehicle fleet
  - fuel consumption
  - road expenditures
- from 1963

Availability:
- IRF World Road Statistics
IRTAD
International Road Traffic Accident Database

- part of OECD RTR Programme, since 2004 - JTRC OECD/ECMT
- operated and checked by BASt (Germany)
- 29 OECD member states (without Mexico + Slovenia)
- includes:
  - killed
  - injured
  - injury accidents
    > disaggregated according
    - age groups
    - road users
    - type of road

- indicators related to:
  - vehicle fleet
  - population
  - traffic performance
  - modal split
IRTAD

- since 1970
- annual data
- monthly data
- fatalities - 30 days (reported)

Availability:

- direct access for member institutes by internet or CD – ROM
- general figures free available
  http://www.bast.de/htdocs/fachthemen/irtad/english/englisch.html
IRTAD is not only accident statistics database, but group of road safety professionals:

- closely co-operating
- sharing national experience
- enhancing international comparability
- responding to the needs of governments, research, international organisations and private bodies
Special reports:

- Under-reporting
- Follow-up of traffic victims during the 30-days period
- Seat belt wearing data
- Methods and necessity of exposure data
- Definitions and data availability
- Hospitalized road user survey

IRTAD welcomes and is prepared to extend to further countries
Killed in road accidents per mill. mot. veh. (2000)
8. Conclusions

A forceable road safety management system has to be based on reliable accident data comparable on international level.

IRTAD → challenging opportunity
Thank you for your attention

DR. JOSEF MIKULIK
(jmikulik@cdv.cz)