Set targets for serious injury reduction in Europe

This 15th Road Safety PIN Flash is launched in conjunction with the **World Day of Remembrance of Road Traffic Victims** taking place every 3rd Sunday of November, falling this year on the 15th of November.

In addition to the **39,000** people killed in road collisions in the European Union, about **1,700,000** people are recorded as injured in police records each year, among them **300,000** seriously(1). Road deaths represent only the "tip of the iceberg" of traffic collisions. For every road death in the EU, at least **44** road injuries are recorded, of which **8** are categorised as "serious". Involvement in road accidents is one of the leading causes of death and hospital admission for EU citizens under 45 years of age(2).

Today, thanks to more protective vehicles and roads, better emergency response and medical progress, many deaths are prevented but the survivors remain and many are seriously injured. European and national decision makers should not neglect this less-publicised part of the real picture by referring only to road deaths.

Yet, EU comparisons are hampered because both the levels of injury reporting and national definitions of a serious injury vary greatly among countries. The magnitude of underreporting undermines proper allocation of resources to preventive measures. Improving the quality of data about seriously injured survivors of road collisions is key to designing more effective safety policies. **Sweden** is taking the lead in linking police and hospital data and wishes to start using its number of seriously injured recorded by the hospital for international comparison.

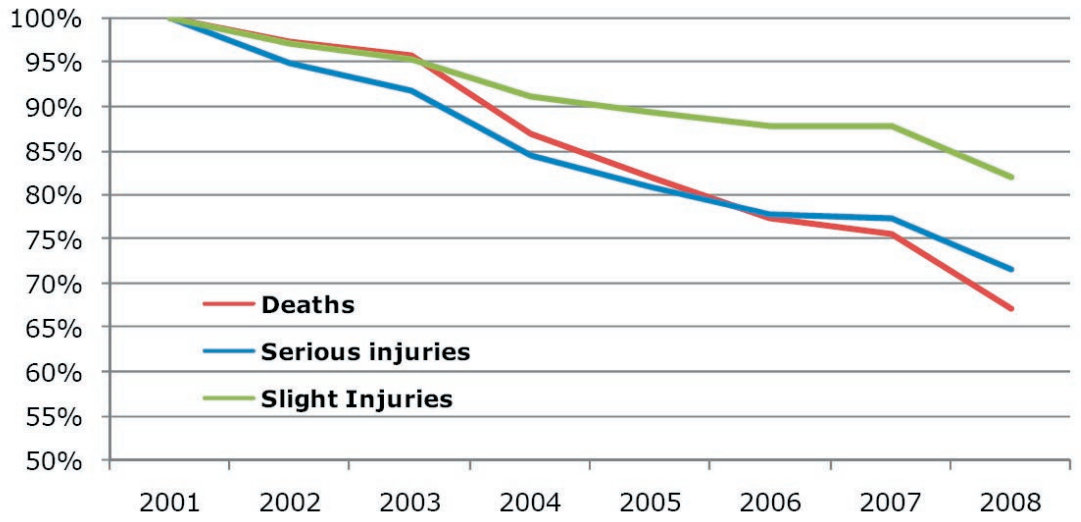


Fig.1: Relative reductions in deaths, serious and slight injuries in 14 EU countries taken together over the period 2001 to 2008 (2001=100%). *Countries considered (BE, CY, CZ, DK, DE, ES, EL, IE, LU, NL, PT, SK, SE and UK). Police data except Sweden (hospital data).*

The European Commission recently launched its **Consultation on the 4th Road Safety Action Programme 2011-2020**(3). ETSC believes the new Programme should include challenging **targets for the reduction of seriously injured people alongside a target for continued reduction in deaths**. ETSC is proposing a dual track approach(4). Each country should aim to reduce serious injuries, according to its own definition, at the same pace as deaths. At the same time, the EU should work towards the adoption of a common definition of serious injuries to foster EU comparison. In parallel, Member States should improve the recording of serious injuries by making use of both police and hospital

(1) CARE database 2008.
(2) EC Public consultation on the European Road Safety Action Programme 2011-2020.
(3) http://ec.europa.eu/transport/road_safety/consultations/
(4) ETSC (2008), Road Safety as a Right and Responsibility for all.

The indicator

It is not yet possible to compare the number of seriously injured between Member States because of the different definitions of serious injuries together with differing levels of underreporting. This comparison therefore takes as a starting point the changes in the number of serious injuries since 2001 compared to the changes in the number of deaths over the same period.

We give priority to serious injuries rather than slight or total injuries because of the greater impacts of serious injuries on society. Moreover serious injuries are more likely to be reported to the police than slight injuries[5].

Numbers of seriously injured were supplied by the PIN Panellist in each country using their national definition of serious injuries. National definitions as provided by Panellists are available in the Background Tables (http://www.etsc.eu/PIN-publications.php). All PIN countries collect data on "serious injuries" with the exception of **Estonia, Finland, Italy**[6] and **Lithuania** where no distinction is made between "serious" and "slight" injuries. 16 Member States, **Belgium, Cyprus, Czech Republic, Denmark, Germany, Greece, Ireland, Luxembourg, France, Latvia, the Netherlands, Portugal, Slovakia, Spain, Sweden** and **the UK**, as well as **Switzerland** and **Israel**[7], use similar definitions of severe injuries, spending at least one night in hospital as an in-patient or a close variant of this[8]. In practice, however, in most European countries, there is unfortunately no standardised communication between police and hospitals and the categorisation as "serious" is often made by the police. All PIN countries, with the exception of **Sweden**, provided numbers of seriously injured recorded by the police. In the case of Sweden, the number of seriously injured recorded by the hospitals was used throughout the report. Numbers based on police reports are shown in Fig. 4 only for comparison.

With the definition of a serious injury applied in this report, a wide range of injuries are considered under the same definition within each country. They range from lifelong disablement with severe damage to the brain or other vital parts of the body to injuries whose treatment takes only a few days and which have no longer term consequences.

1. Smaller reduction in serious injuries than in deaths between 2001 and 2008

In the group of EU countries using a similar definition of serious injuries (see Indicator box), the number of seriously injured survivors registered in national statistics was **28%** fewer in 2008 than in 2001, compared to **33%** fewer for road deaths.

Fig. 1 shows that deaths and serious injuries decreased at broadly the same pace between 2001 and 2008, but the reduction in slight injuries was slower between 2003 and 2007.

In Fig. 2 the annual average percentage change in road deaths since 2001 in 27 of the PIN countries is plotted vertically against the annual average percentage change in serious injuries (estimated in each case from data for all of the eight years) plotted horizontally. The EU averages of the two indicators are used to divide the diagram into four quadrants.

Latvia, Portugal, Spain, Belgium, Germany, Switzerland and **Ireland** achieved better than average reductions in both the numbers of seriously injured and killed people since 2001. **Slovenia, Greece, Cyprus, the UK, the Czech Republic, Denmark** and **Poland** have also made above-average progress in reducing serious injuries but the reductions in people killed were not sufficient to bring them into the favourable lower left quadrant.

Luxembourg, France, the Netherlands, Israel and **Austria** made above-average progress in reducing the number of people killed but lower-than-average reduction in serious injuries. **Malta, Norway** and **Slovakia** made lower-than-average reductions in both serious injuries and deaths. **Hungary** and **Bulgaria** have been slightly reducing deaths but not injuries, and **Romania** has reduced neither.

(5) ETSC (2007), Social and Economic consequences of Road Traffic Injury in Europe.
(6) Serious injuries only are not collected at the national level in Italy. But PIN Panellists for Italy estimated from sample studies made at the regional level that serious injuries represented around 35% of the total recorded injuries.
(7) ETSC Road Safety Performance Index (PIN) Programme covers all the 27 Member States of the EU, as well as Israel, Norway and Switzerland.
(8) The definition may include also a quite wide list of injuries and the allocation of "serious" is made by the police officer at the scene. Errors in the categorisation cannot be excluded.

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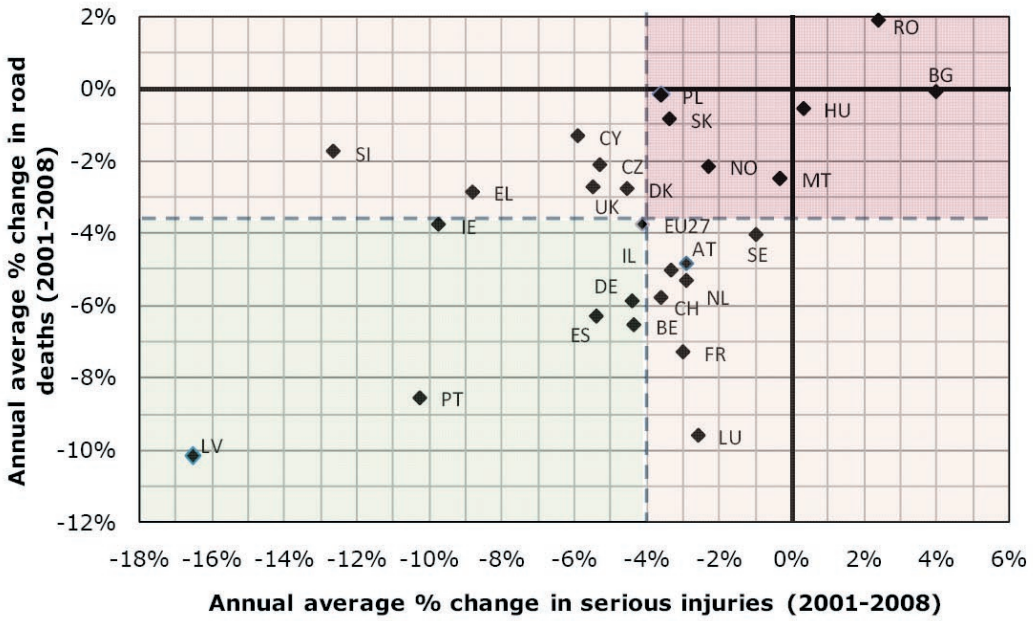


Fig.2: Amount by which the annual average percentage reduction in serious injuries (2001-2008) exceeds the average annual percentage reduction in road deaths (2001-2008) or vice versa.

** Latvia (2004-2008), France (2005-2008).*

*** EU average (EU27 excluding Estonia, Finland, France, Italy, Latvia and Lithuania).*

In the group of 16 EU countries using similar definitions of serious injuries, annual average reductions in the number of serious injuries and in the number of deaths have continued at almost the same pace since 2001 when estimated using data for all 8 years: **4.7%** annually for serious injuries and **4.9%** for road deaths.

However the situation differs considerably from country to country. Fig. 3 shows the amounts by which the annual average percentage reduction in serious injuries exceeds the reduction in road deaths (countries with blue bars), and, equivalently, minus the amount by which the annual average percentage reduction in deaths exceeds the reduction in serious injuries (countries with orange bars).

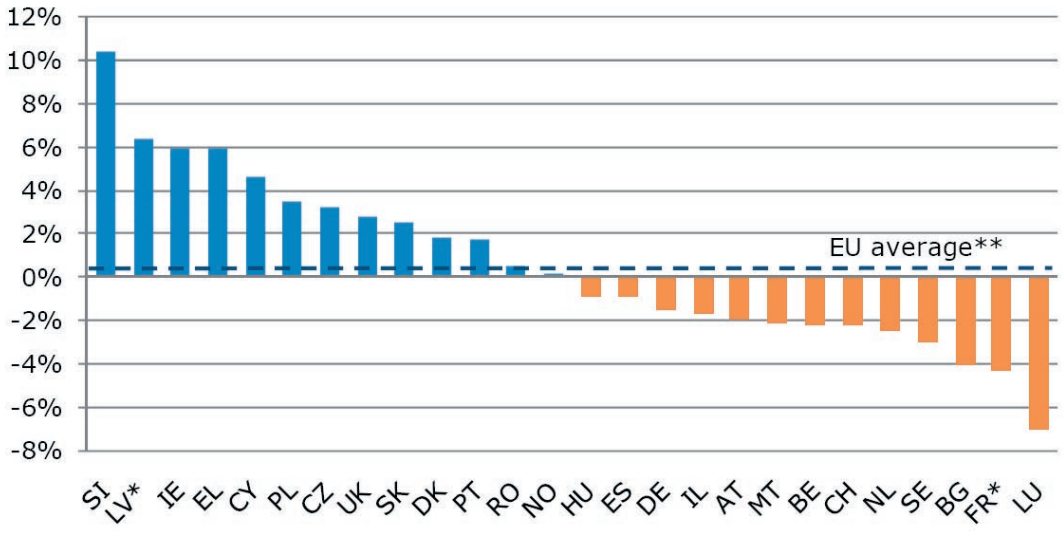


Fig.3: Amount by which the annual average percentage reduction in serious injuries (2001-2008) exceeds the average annual percentage reduction in road deaths (2001-2008) or vice versa.

** Latvia (2004-2008), France (2005-2008).*

*** EU average (EU27 excluding Estonia, Finland, France, Italy, Latvia and Lithuania).*

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In some countries - **Romania, Norway, Hungary** and **Spain** - changes in road deaths and serious injuries followed at almost the same pace. But in others -**Luxembourg, France, Bulgaria** and **Sweden**- reductions in road deaths exceeded by far the reductions in serious injuries, whereas in **Slovenia, Latvia, Ireland** and **Greece**, the reverse was the case.

It is difficult to explain such differences between countries. Several factors could play a role. The rates of reduction could be influenced by changes in the level of underreporting of serious injuries during the period concerned or changes in in-patient admission criteria. Improvements in the reporting system of serious injuries will be reflected in the statistics by an increase in the number of serious injuries. Other factors can play a role too such as in the mix of different types of collision.

Some road safety measures might be more successful in reducing road deaths than in reducing serious injuries and vice-versa. Changes in the quality of emergency services, travel patterns (e.g. more cycling or walking) and behaviour influence the outcome of collisions.

"Reduced driving speed has been shown to be the single most important factor of our recent road safety improvements. Nilsson has shown that on average a 1% reduction in the mean speed leads to a 4% reduction in fatal collisions, but a 3% reduction in severe injury crashes. It is therefore logical that we were more successful in reducing road deaths than in reducing serious injuries".

Jean Chapelon, road safety expert, France.

"In the Netherlands, 45% of all seriously injured are injured while cycling with no motor vehicle involved. Traditionally, many road safety measures are targeted at car occupants and at interactions between motor vehicles and pedestrians or cyclists. The new Dutch Road Safety Plan sets a series of priority actions for 2020, in particular extra protection for vulnerable road users, such as cyclists"[9].

Peter Mak, Ministry of Transport, the Netherlands.

2. Underreporting of serious injuries

The actual number of people injured in road collisions is not known, but sample studies have shown it to be considerably higher than the official recorded number based on police reports. For serious injuries it can be estimated by comparing the number of injured road users treated in hospitals to the number recorded by the police. This was done within the SafetyNet project for eight countries participating and results were published in a Report *"Estimating the real number of road accident casualties"*[10]. In general, the lower the injury severity, the higher the underreporting in accident statistics tends to be. The level of reporting tends also to be lower for pedestrians, cyclists and motorcyclists than for car occupants. This is because in particular with collisions with no motor vehicle involved, or between one motor vehicle and a pedestrian or cyclist and no victims killed on the spot, victims, the involved driver or eyewitnesses call the emergency services but not necessarily the police.

The level of reporting also varies greatly among countries. These differences result from differences in legislation, insurance policy, police resources and quality of data collection and processing. In some countries, reporting is better because the police has to attend all collisions with injury (e.g. Germany) or because insurance compensation can only be claimed if there is a report by the police.

While only less than 2 seriously injured people are registered for every death on the roads in **Greece** or **Latvia**, 12 are registered in the **Netherlands**, 15 in **Germany** and up to 23 in **Sweden**. The differences in serious injury per death rate does not mean that fewer people are injured for every road death in Greece or Latvia than in the Netherlands, Germany or Sweden but that seriously injured survivors are better reported in the latter countries. The Swedish example gives an illustration about the existing gap between police records and hospital records. There are no more than 9 seriously injured people registered by the police for every death (compared to 23 recorded by hospitals). Using police data only would bring Sweden close to the EU average.

[9] Dutch Road Safety Strategic Plan 2008-2020, p. 75-76. http://www.verkeerenwaterstaat.nl/english/topics/road_traffic_safety/

[10] Broughton et al. (2008), "Estimating the real number of road accident casualties", deliverable D.1.15, SafetyNet. www.erso.eu/safetynet/content/safetynet.htm. Countries participating: the Czech Republic, France, Greece, Hungary, the Netherlands, Spain and the UK.

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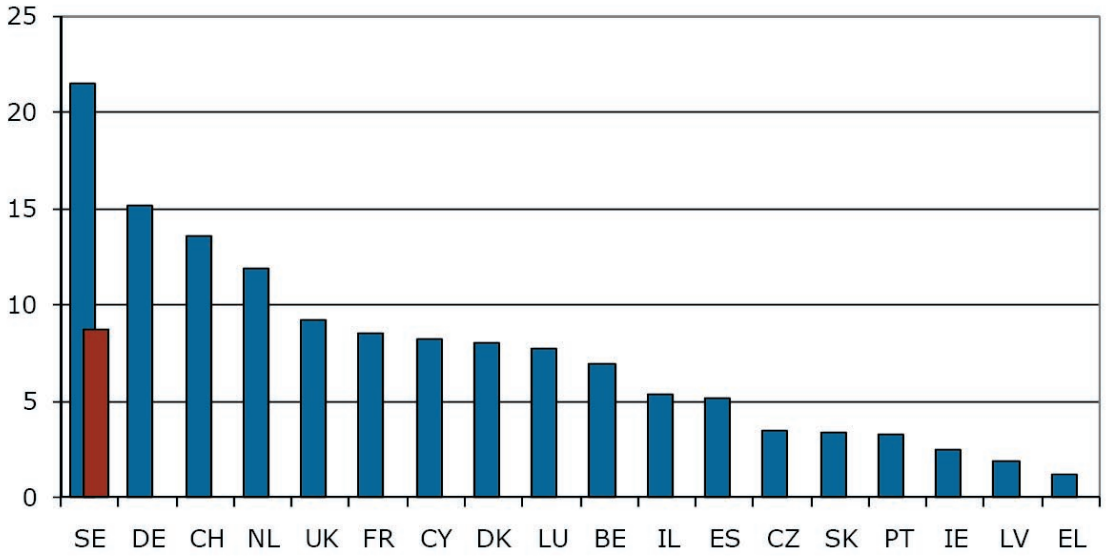


Fig. 4: Number of seriously injured recorded in national statistics per road deaths (average of the years 2006, 2007, 2008), for countries using similar definitions of serious injuries only.

Note: In the case of Sweden, the number of seriously injured recorded by the police only (red bar) is shown for comparison with the number of seriously injured recorded by hospitals (blue bar). Recent analysis mentioned on p. 8 indicates a similar order of magnitude of difference for Great Britain. In the Netherlands, the difference between hospital and police records of serious injuries in road traffic is estimated as a factor of about 2.

Comparison of the positions of countries in Fig. 4 with their positions in Fig. 3 shows quite a strong tendency for countries recording more injuries per death to be reducing recorded injuries more slowly than deaths, and those recording fewer injuries per death to be reducing the recorded injuries faster than the deaths.

In the SafetyNet report "Estimating the real number of road accident casualties", conversion factors for underreporting were estimated for eight EU countries. It was originally envisaged that the conversion factors would be generalised to other EU countries to allow for European comparison. The authors came to the conclusion however that conversion factors differed too widely among countries and that comparable studies should be conducted in as many countries as possible.

3. Towards a common definition of serious injuries?

Already 16 EU countries use similar definitions of severe injuries, spending at least one night in hospital as in-patient or a close variant of this.

"As in many other EU countries, we are also using the 24h definition in Belgium. But, in practice, it is still the police who have to define on the spot the severity, a task for which police officers have not been trained. The problem is that often professionals in emergency services are already working under extreme time pressure and claim to not have the capacity to inform the police".

Yvan Casteel, IBSR, Belgium.

"In Sweden we have the information about in-patients treated in hospital following a collision easily available from the hospital discharge database. The information coming from hospitals are matched with the police records using date of the accident as well as the casualty's ID number. We consider it crucial to use hospital records to have a picture as close as possible to the actual number of serious injuries. Because this will in turn determine the resources we allocate to road safety and the measures to be prioritised".

Asa Ersson, Swedish Road Administration.

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The SafetyNet[11] report mentioned above considered a definition based on either the length of stay in hospital or injury severity. Length of stay is easy to measure, but it is influenced by clinical practices and the availability and organisation of hospital services which differ from country to country. Results based on injury severity as measured by the Maximum Abbreviated Injury Scale (MAIS)[12] are more likely to monitor casualty and severity trends reliably but imply adequate staff training.

"In The Netherlands, we noticed that more than before people are kept for observation as a preventive measure without having sustained any injury. It was therefore decided to change our definition of serious injury as "an in-patient, with injury level MAIS=2 or more".

Henk Stipdonk, SWOV, the Netherlands.

4. The importance of linking police and hospital records

In addition to the obvious advantages of having a more complete picture of road accidents, a data system linking police and hospital records could provide numerous other opportunities. It would provide an opportunity to improve cooperation with medical and public health community stakeholders. At national level and even more at local level, counts of different types of injury are also used as additional indicators of road safety outcomes as the numbers of people killed fluctuate too much to provide a basis for assessing road safety policies.

At the national level, the impact of countermeasures such as the effectiveness of seat belt laws could be evaluated more comprehensively. At the EU level, a linked database would provide the basis for standards and directives and for setting injury reduction targets across the European Union.

Sweden has been routinely linking police and hospital records since 2003 and the creation of STRADA, the Swedish Traffic Accident Data Acquisition system. Implemented by the Swedish Road Administration, this was developed in cooperation with the Police, the Federation of Swedish County Councils, the National Board of Health and Welfare, the Swedish Association of Local Authorities, the Swedish Institute for Transport and Communications Analysis and the National Statistic Office. This coordinated national registration of traffic accidents and injuries is now run by both the police and the health care authorities. The information provided by the police covers the whole of Sweden. It is complemented by information coming from more than 70% of all hospitals with emergency units. The police and the hospitals use two different questionnaires. The data collected by the police include information about when, how and where the accident took place and the traffic environment. Questionnaires used in hospital also provide information about the diagnosis and the treatment the victims received.

IRTAD workshop on linking hospital and police data

At the invitation of the UK Department for Transport, IRTAD the International Traffic Safety Data and Analysis Group is organising a Workshop on Linking Hospital and Police Data on the 30th of November and 1st of December 2009, in London. A report will be prepared by the IRTAD group in 2010.

More information:
http://internationaltransportforum.org/irtad/index.html or Veronique.FEYPELL@oecd.org

(11) Broughton et.al (2008), "Estimating the real number of road accident casualties", deliverable D.1.15, SafetyNet. www.erso.eu/safetynet/content/safetynet.htm

(12) The Abbreviated Injury Scale (AIS) is a specialised trauma classification of injuries, ranging from 1 (minor injuries) to 6 (fatal injuries). As one person can have more than one injury, the Maximum Abbreviated Injury Score (MAIS) is the maximum AIS of all injury diagnoses for a person.

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5. Killed and seriously injured per million population: another indicator in the future?

Road mortality - road deaths per million population - is commonly used to benchmark the level of road safety between countries. As said before, this is however only part of the picture. Fig.5 is an attempt to give a larger picture of the impact of road collisions by adding together the numbers of recorded deaths and serious injuries per million population. The reader should bear in mind that this is not yet a mature indicator due to large differences in definition and reporting practices for seriously injured road users.

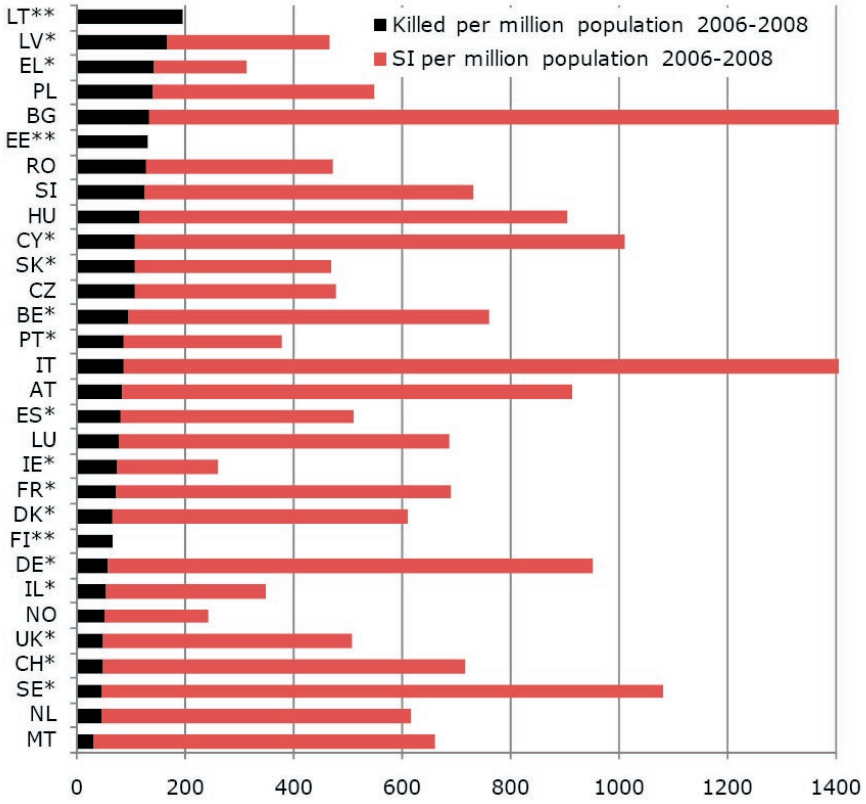


Fig. 5: Killed and seriously injured per million population (average for the years 2006-2008).

** Countries using a comparable definition of one day in hospital for serious injuries. Police data except Sweden (hospital data).*
*** Estonia, Finland, Italy and Lithuania do not collect number of serious injuries, only total injuries. Our PIN Panellists for Italy estimated that the number of serious injuries represented about 35% of total injuries and that estimate is used in the Figure.*

But as reporting procedures move toward harmonisation in the EU, Killed and Serious Injuries (KSI) per million population may well in the future become another indicator for comparison between countries. How soon this is achieved will depend on the time it takes to agree on a practicable harmonised definition and recording standards, and to equip and train police forces, hospital staff and data-handling organisations in the Member States to implement them.

Sweden has found a way of bringing together data gathered by the police and many of the relevant hospitals, and other countries may well be able to benefit from the experience in Sweden, but each country would need to work out a good way for its own busy police officers and busy hospital staff to deliver the agreed standard of recording. Harmonised standards of recording do not imply identical recording procedures.

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Background

Road safety as a public health issue

Road casualties are not often recognised as a public health problem. Improving road safety allows resources to be saved by reducing hospital admissions, the severity of injuries, rehabilitation needs and demands on emergency services. Improving safety for cyclists and pedestrians would also help to create conditions that can facilitate the choice of healthier lifestyles, thereby contributing to reducing risks for many non-communicable diseases. All these are gains to be made in public health. The WHO and ETSC in its contribution to the 4th RSAP have proposed that the health professionals embrace a more pro-active role in preventing road traffic crashes. Professionals involved in trauma care and rehabilitation can use the emotional impact and moral authority derived from witnessing the human tragedy behind road traffic injuries as a means of promoting effective public health measures[13].

In a number of countries medical and public health professionals have been particularly instrumental in convincing decision makers about the merits of seat belts, child restraints and helmets, as well as lowering the BAC limit or driving speeds. Medical organisations have been helpful in educating the public about the benefits of these safety measures in particular supporting anti-drink driving and anti-speeding legislation. Cross-sectoral collaboration is essential for the introduction of science based countermeasures, and this is something the public health sector is in a good position to promote.

Setting national targets to reduce serious injuries

Several EU Member States -among them Austria, Denmark, Latvia, the Netherlands, Spain, Sweden and the UK- have adopted targets for reducing serious injuries.

Great Britain has had an injury reduction target since 1987. In 2000, new targets were set to reduce by 2010:
- the annual number of killed or seriously injured by 40%;
- the annual number of children killed or seriously injured by 50%; and
- the number of slightly injured per unit of vehicle-distance travelled by 10%;
compared with the average for the years 1994-1998.

According to the official data recorded by the police, all casualty reduction targets were already achieved in 2008 with a 40% reduction in killed and serious injuries, a 59% reduction in respect of the child target and a 36% lower rate for slight injury.

However the UK picture differs greatly with respect to the data source considered. From the analysis of hospital data and surveys of injury experienced in households sampled in the ongoing national household travel survey it emerges that there may well have been around 80,000 serious injuries in road traffic in 2008 whereas the police only recorded around 26,000[14].

"Some work has started to reconcile police and hospital data. Lining up more closely police and hospital data is the challenge that we need to address to have more accurate data analysis".

Robert Gifford, PACTS, UK.

In May 2009 the **Swedish** Parliament set itself the objective to halve the number of deaths between 2007 and 2020, as well as to cut the number of serious injuries leading to long term impairment by 25%.

It may take some time between the accident and the diagnosis of long-term impairment. It is however possible to assess the probability that a particular type of injury reported at the hospital leads to long term impairment. The insurance company Folksam estimated it according to the body region injured based on the Abbreviated Injury Scale. Folksam's method is likely to have low "predictive value" at the individual level but can be used on a large enough group to estimate how many people in the group might suffer long term disabilities.

Every year between 20,000 and 30,000 new injured road users are registered in the STRADA database and assigned an AIS value. According to the Folksam estimation, around 3,700 regis-

[13] WHO Regional Office for Europe (2004), Preventing road traffic injury: a public health perspective for Europe.
[14] DfT (2009). Reported Road Casualties Great Britain: 2008. Annual Report.

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tered in STRADA in 2008 might sustain long term disabilities. 47 out of the 66 emergency hospitals in Sweden are affiliated with STRADA, covering approximately 70% of the Swedish population. It can therefore be estimated that the total number of serious injuries leading to long term impairment was around 5,800 in 2008.

Denmark has had an injury reduction target since 1989. The new objectives for 2012 are to reduce by 40% the number of people killed, seriously injured and slightly injured taken separately. If the targets are achieved, there should be no more than 200 people killed, 1,850 seriously injured and 2,100 slightly injured in 2012 on Danish roads.

*"A new Road Safety Strategy 2008-2015 has just been adopted in **Portugal**. If there is a target of no more than 62 deaths per million habitants by 2015 (a 32% reduction from 2006 figures), there is however no injury reduction target. This is in contrast with the previous Road Prevention Plan, which included explicit targets for serious injury reduction".*

João Cardoso, LNEC, Portugal.

Improving post-crash care

Research shows that at least 50% of deaths from road traffic crashes occur within minutes, either at the scene or while in transit to hospital. Of the remainder, most die within 24 hours despite medical care. Therefore both the response time of emergency services and the quality of the care play important roles in survivability of accidents. As important as pre-hospital care, good longer-term hospital and post-hospital care and rehabilitation are essential to mitigate the injury sustained and improve the quality of life of severely injured survivors.

The European Commission is urging Member States to implement eCall

In case of a severe crash, an eCall-equipped car will automatically call the 112, Europe's common emergency number. Even if no passenger is able to speak, e.g. due to injuries, a minimum set of data is sent automatically, which includes the exact location of the crash site. The eCall can also be activated manually. A full implementation of eCall is estimated to cut response time across Europe thus increasing the proportion of those with potentially fatal injuries who survive, as well as mitigating the severity of other injuries.

eCall enjoys widespread support from all stakeholders and the general public. However, progress has been slow and the Commission is making a last call to all stakeholders to speed up voluntary implementation. If no significant progress is made by the end of 2009, the Commission will propose regulatory measures in 2010. eCall is also included as a priority measures in the EU ITS Action Programme and Directive proposal. The Directive is currently being negociated between the EU Transport Council and the European Parliament.

Communication from the Commission 'eCall: time for Deployment'
http://ec.europa.eu/information_society/activities/esafety/ecall/index_en.htm

ITS Action Plan and Proposal for a Directive
http://europa.eu/legislation_summaries/transport/intelligent_transport_navigation_by_satellite/tr0010_en.htm

Long-term impacts of traffic injuries

Accidents happen in a fraction of a second but their consequences may last for days, months, years or the rest of life. In addition to reduced quality of life, road accidents carry many other consequences for the survivors such as job losses or job limitations, home and vehicle adaptations, as well as psychological consequences.

Injuries that shortly after the accident are considered to be slight or minor can have huge impact on the individual's future health. Whiplash associated disorders (WAD) is a typical example. WAD gets the lowest score in the Abbreviated Injury Scale (AIS 1), but it is by far the single most expensive condition from the insurance compa-

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nies' perspective in most of the EU countries. Some of the patients seeking compensation for WAD did not consider the condition to be serious enough to warrant medical examination immediately after the injury. The pain and discomfort associated with the injury only became apparent later.

The same applies to psychological consequences of road collisions. A proportion of people involved in road collisions develop psychological symptoms, particular post-traumatic stress disorder. The incidence does not seem to be correlated with the severity of injuries, but rather with the perceived subjective threat to life[16].

The burden of crashes is borne not only by those directly involved in road crashes but also by their families. A large proportion of relatives of dead and disabled victims suffer psychological disorders, including anxiety attacks and suicidal feelings. One of the recommendations of the European Federation of Road Traffic Victims (FEVR) is the creation of free assistance centres for victims, where they would receive assistance and advice.

Did you know?

According to the International Brain Injury Association, road crashes account for 50% of all traumatic brain injury and are the leading cause of this type of injury among persons under 65.

More than 50% of spinal cord injuries are due to a road crash, says the International Campaign for Cures and Spinal Cord Injury Paralysis (ICCP)[15].

Ongoing European Cooperation in injury data collection

EuroSafe – European Association for Injury Prevention and Safety Promotion

EuroSafe acts as a catalyst in filling the gaps in current policies and programmes, and in creating synergies between the distinct sectors, disciplines and stakeholders involved in injury prevention and safety promotion. EuroSafe has established dedicated knowledge networks for key priority areas in injury prevention, such as the *Injury Data Network* (IDN) and the *European Child Safety Alliance* (ECSA).
More information: www.childsafetyeurope.org or w.rogmans@eurosafe.eu.com

The European Injury Database (IDB) – hospital based information for road safety

The European Injury Database (IDB) is an injury surveillance system that collects accident and injury data from selected emergency departments of Member State hospitals according to the WHO ICECI data standard[17]. The IDB online database is hosted by the European Commission, Health and Consumer Protection (DG SANCO). The focus of the IDB is on prevention. Therefore, it provides not only information about the type of injury but also about its circumstances. The scope of the IDB has recently expanded to cover all types of injury, including injuries from road collisions.

The IDB is expected to serve as a complementary data source to police records and CARE, in particular for an improved assessment of injury severity and a broader coverage of pedestrian and bicycle injuries on the roads which tend to be underreported in the police data.

More info: https://webgate.ec.europa.eu/idb/ or Rupert.Kisser@kfv.at

(15) ETSC (2007), Social and Economic Consequences of Road Traffic Injury in Europe.
(16) Ibidem.
(17) International Classification of External Causes of Injury (ICECI). http://www.who.int/classifications/icd/adaptations/iceci/en/index.html
The ICECI and the AIS are different ways of classifying injuries but it is possible to convert ICD codes into AIS. See SafetyNet report by Broughton et al.

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ETSC recommendations

Adopt serious injury targets for 2020 as part of the EU 4th Road Safety Action Programme

- Each Member State should adopt national reduction targets for seriously injured (using their current definition of what is a serious injury) alongside the reduction of deaths. ETSC proposes that each Member State aims for a 40% reduction of seriously injured by 2020[18].
- The EU should work towards the adoption of an EU common definition of serious injuries to foster comparability.
- Member States and regional or local authorities should adopt targets for reducing excessive and inappropriate speed to reduce injury severity.

Improve quality of injury data

- Member States should improve the recording of serious injuries by making use of both police and hospital records.
- The EU should develop and encourage Member States to adopt a simple injury scale (SIS) suitable for use by the Police and other emergency services and linked to the globally-accepted Abbreviated Injury Scale (AIS).
- Member States should provide training to Police and other emergency services in the use of the SIS. This would make injury data based on police reports more comparable between countries.
- Final classification of injuries according to severity should be performed in an appropriate proportion of cases by medical professionals using the AIS and trained in its correct use.

Involve health professionals more effectively in road safety issues

Health professionals should be involved:

- in developing good practices and guidelines on essential trauma care and emergency services;
- in estimating the real social costs of road traffic injuries;
- in serving as opinion leaders to encourage decision makers to promote road safety legislation and to help educate the public.

Improve post accident care

Member States should:

- Include both pre- and post-hospital care in road safety strategies and make road injury a priority issue for the health sector;
- Provide the necessary support to make Emergency Telephone Number 112 and eCall operational as soon as practicable;
- Improve emergency response[19].
- Improve long-term hospital care and rehabilitation of road crash survivors.

The EU should:

- Adopt the ITS Directive making eCall one of the priority measures;
- Propose regulatory measures to implement eCall across the EU and include it in vehicle type approval.

Create a road safety system that recognises the vulnerability of the human body

- Curb illegal and inappropriate speed, which will reduce injury severity in all kinds of collisions.
- Aim for a 100% use of seat belts in front and rear seats, helmets and child restraint systems.
- Fight drink driving and drug driving.
- Improve vehicle passive and active safety in particular protection against whiplash injury.
- Make roads and roadsides more protective and forgiving.

(18) In ETSC's Blueprint for the EU's 4th Road Safety Action Programme, it was mentioned that Member States should aim for a reduction of 20% of serious injuries. Giving the new evidence that serious injuries decreased at almost the same pace as road deaths between 2001 and 2008, we felt that a 20% reduction target would not be challenging enough for 2011-2020. The reduction target for serious injuries should be the same than the reduction target for road deaths if we want to sustain progress in reducing serious injuries.

(19) ETSC (2008), Road safety as a right and responsibility for all, Annex 2 Steps to improve emergency care and rescue systems.

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Interviews

ETSC spoke with Brigitte Chaudhry, President of the European Federation of Road Traffic Victims (FEVR) and founder of the UK NGO RoadPeace. Brigitte was also instrumental with FEVR member organisations in setting up and observing since 1993 a Day of Remembrance for commemorating road victims. In 2005 this was adopted by the United Nations as World Day of Remembrance observed annually on the 3rd Sunday of November - this year on 15th November 2009 with the theme *From global remembrance to global action!*

ETSC: Why is it important that all EU Member States aim for a reduction in seriously injured people alongside deaths?

Serious injured have so far been largely forgotten, yet serious injuries shatter lives and are also very costly to all of us. We believe that reductions in death rates may be partly due to more people surviving with very serious injuries, which is a further reason why they should be included in EU targets. It is shocking that our information on injuries is still so inadequate.

ETSC: What do you do for road traffic victims?

FEVR represents the interests of the bereaved and injured. The NGOs under FEVR's umbrella are virtually alone in providing advocacy and support to the annually expected victims, who join the existing huge group of people already affected by road trauma, often forever. Why is it that there is no provision for the casualties who are being expected each year? FEVR and the victim organisations in various countries are trying to make clear to decision makers and other road safety NGOs that the post crash response (crash investigation, criminal and civil justice, longer-term care and rehabilitation) must be seen and treated as part of prevention

ETSC: Why a World Day of Remembrance for Road Traffic Victims? And what will happen this year?

I will answer with a quote from the World Day Guide, produced by WHO, FEVR and RoadPeace: "[…] *to offer solidarity and friendship to fellow victims, draw attention to the devastation caused by road danger and call for an end to the carnage*".

The Day will again be observed throughout the world - with a great variety of events and ceremonies, ranging from religious services and vigils to concerts, conferences and exhibitions, no longer organised by victim NGOs alone, but increasingly also by organisations involved in road safety work and relevant government departments.

> To offer solidarity and friendship to fellow victims, draw attention to the devastation caused by road danger and call for an end to the carnage

ETSC: On 19-20 November 2009, the Government of the Russian Federation will host the First Global Ministerial Conference on Road Safety. At this Conference you will present the "Appeal from National and International NGOs working for better road safety and road victims' rights". What are the main calls to Ministers for the Decade of Action?

The key proposals are that governments change transport policy giving priority to safety and sustainable mobility, and that road safety policies include all post crash areas: immediate rescue interventions, thorough investigations, effective criminal and civil proceedings where appropriate and rehabilitation and support. The Summary of the NGO Declaration is being translated into all 6 UN languages by the WHO.



Brigitte is the founder and President of RoadPeace, the UK's charity for road traffic victims, which she set up after her son was killed by a red light offender in 1990. A teacher until then, she has since concentrated her efforts on researching and publicising the situation of road victims and the legal response to road death and injury, both in the UK and abroad. She is the co-author of the report "Impact of road death and injury", and was made an honorary MBE for her work in the UK in 2003. Brigitte is also the current President of the European Federation of Road Traffic Victims (FEVR), an umbrella organisation of over 20 national organisations.
www.roadpeace.org and www.fevr.org;
www.wdr.org (Website of the World Day of Remembrance);
www.1300000.net (Website of the 1st Global Ministerial Conference on Road Safety).

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Faces behind the figures...

ETSC spoke to Dr. Aine Carroll from the Irish National Rehabilitation Hospital to try to understand what sort of people those seriously injured road crash survivors are.

ETSC: Who are the victims of road crashes that you treat daily in your hospital?

Most of our patients with road traffic collision related injuries are young males with traumatic brain injuries, traumatic spinal cord injuries and traumatic limb amputations.

Traumatic injuries can have numerous sequelae both physical and psychological and can have a devastating impact on the person and the extended family. Individuals with moderate injuries stand a reasonable chance of being able to return to participate in society either independently or with assistance. Only approximately 10% will return to work. Those with severe injuries will remain dependent on others for all aspects of their day to day activities for the rest of their lives.

> Only approximately 10% will return to work

ETSC: How can national governments and the EU help you and your patients?

It is essential that appropriate investment is made in injury prevention. There needs to be active participation in good quality data collection and Ireland has to participate in the EU Injury Database and an injury surveillance register. A national injury prevention authority should be also set up in each Member States. Education is paramount to any prevention strategy, especially for the most at risk groups. It is essential that there is adequate provision of appropriate services across the spectrum of services from acute care and post acute hospital care and into the community. Access to Rehabilitation services as soon as possible following injury is a basic human right which is supported by the United Nations Charter through its standards (1993) and by the European Year for People with Disabilities, 2003. Such services should be available to all persons across the rehabilitation spectrum when required in a timely manner. Rehabilitation services have been chronically underfunded in Ireland for many years and it is likely that very few persons with acquired brain injury gain access to the services they require.

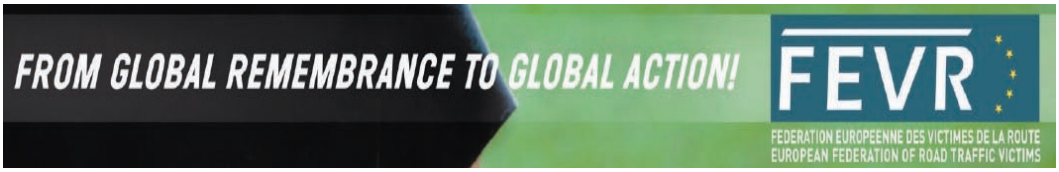
ETSC: What can you and your colleagues do to raise awareness about the necessity to curb road carnage?

Myself and my colleagues participate in a variety of educational activities and participate in local and national strategic development. As Rehabilitation Consultants we feel we are well placed to comment on the consequences of road traffic accidents and would see it as part of our role to be involved in public awareness campaigns. However, we are very few in number and indeed are at the bottom of the European league of numbers of Physical Medicine and Rehabilitation specialists. There needs to be significant expansion in our numbers to enable us to develop our remit from fire fighting to prevention, education and enablement.

> Access to Rehabilitation services as soon as possible following injury is a basic human right

Dr Áine Carroll is a Specialist in Rehabilitation Medicine at the National Rehabilitation Hospital (NRH) in Dublin, Saint Vincent's University Hospital and the Royal Hospital in Donnybrook. She is currently President of the Irish Association of Rehabilitation Medicine. She has published on a wide variety of rehabilitation issues.





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European Transport Safety Council

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