



Deliverable D3.11d: Safety Performance Indicators for Alcohol and Drugs: Updated Country Profiles

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Executive Summary

The aim of this report is to summarize information received from the National experts on road safety performance indicators relevant to the alcohol and drugs road safety performance indicator developed within the SafetyNet project. Country specific information and relevant figures were collected through several questionnaires and allow emerging the enormous differences between countries in terms of indicator definition and data availability.

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1 Introduction

The EC 6th Framework Integrated Project SafetyNet aims to accelerate the availability and use of harmonised road safety data in Europe. Having such data available throughout Europe would be tremendously beneficial for road safety, since it would enable the evaluation of road safety measures, the comparison of road safety status within and between countries, and the accelerated sharing of best practice in road safety policy.

One of the macroscopic road safety related areas that SafetyNet focuses on concerns safety performance indicators (SPI). Such variables indicate road safety by looking at the operational state of the road traffic system. The indicator areas looked at by SafetyNet are: Alcohol and drug use, Speed, Protective systems, Daytime running lights, Vehicles (passive safety), Roads, and Trauma management. In an iterative manner, the SafetyNet SPI team has developed theoretically sound, yet practically feasible indicators. Hakkert, Gitelman and Vis¹ (2007) present the theoretical framework and the developed safety performance indicators.

Before 2007, the SafetyNet SPI team has obtained the relevant data, or information about their availability, from the – then – 27 cooperating countries (25 member states, complemented with Norway and Switzerland). All data obtained was published by Vis and Van Gent in 2007². On basis of those data, and using the developed theory, performance indicators were then calculated for each countries and the safety performance of those countries was compared where possible³.

In 2007 and 2008, updated or new data was obtained from the – now – 29 cooperating countries (27 member states, complemented with Norway and Switzerland). The country comparisons were updated and published by Vis and Eksler⁴ (2008).

The current report presents the updated country profiles with respect to the data for Alcohol and drugs. This indicator area appears to be one of most complex among all areas of SPI treated in SafetyNet project in respect to data reliability and compatibility. A detailed look on data provided by countries may be helpful in gaining a better understanding of SPI figures. Moreover, it may enable their fruitful application in policy making process in respective countries.

Acknowledgement

The authors would like to thank the National Experts of the 29 cooperating countries (27 member states, Norway and Switzerland) for providing the data.

¹ Hakkert, A.S., Gitelman, V., and Vis, M.A. (Eds.) (2007) *Safety Performance Indicators: Theory*. Deliverable D3.6 of the EU FP6 project SafetyNet.

² Vis, M.A. and Van Gent, A.L. (Eds.) (2007) *Road Safety Performance Indicators: Country Profiles*. Deliverable D3.7b of the EU FP6 project SafetyNet.

³ Vis, M.A., and Van Gent, A.L. (Eds.) (2007) *Safety Performance Indicators: Country Comparisons*. Deliverable D3.7a of the EU FP6 project SafetyNet.

⁴ Vis, M.A. and Eksler, V. (Eds.) (2008) *Road Safety Performance Indicators: Updated Country Comparisons*. Deliverable D3.11a of the EU FP6 project SafetyNet.

2 Belgium (BE)

Data received from the country

- Number of road accident fatalities: 1,263 in 2002 and 1,069 in 2006.
- Number of road accident fatalities in 2002 for which at least one driver involved was impaired by alcohol: 103.
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by alcohol: 5.4%.
- Number of road accident fatalities in 2002 for which at least one driver involved was impaired by drugs other than alcohol: 11 (under influence of medicine or drugs). No data for 2006.
- Definition of alcohol impaired, i.e. blood alcohol concentration level: breath test positive, i.e. above the legal limit of 0.5 g/l (‰), breath test refused, or driver obviously under influence of alcohol.

Usability of the data for SPIs

- The data can be used for both alcohol (2006) and drugs (2002).

Quality of the data

- Approximately 20% of drivers involved in fatal accidents in 2002 were tested.
- In 2006 1,383 drivers in total were involved in fatal accidents. 462 (33.4%) of these drivers were tested for alcohol.

SPIs used by policy makers

- Unknown.

Illustration

- Alcohol SPI is 8.2% for 2002 and 5.4% for 2006, if SPI is calculated as alcohol positive drivers involved in fatal accidents divided by *all* drivers involved in fatal accidents.
- Alcohol SPI is 40.7% for 2002 and 16.2% for 2006 if SPI is calculated as alcohol positive drivers involved in fatal accident divided by only the *tested* drivers involved in fatal accidents.
- Neither of the calculations is likely to be correct.
 - The assumption that no drivers among the untested drivers are impaired by alcohol is probably not right because it is unlikely that the police identify all drivers who are impaired without testing them.
 - The assumption that the same percentage is impaired by alcohol among the untested persons as the tested persons is probably not right because it is likely that the police are able to identify a considerable part of the drivers impaired by alcohol.
- It is suggested to calculate the SPI under the assumption that the percentage of alcohol impaired drivers involved in fatal accidents among untested, involved drivers is half that of the tested drivers. Under this assumption the SPI is 24.4 % for 2002 and 10.5% for 2006.
- **The alcohol SPI for 2006 is 10.5%**
- **The drug SPI for 2002 is 0.9%.**

3 Czech Republic (CZ)

Data received from the country

- Number of road accident fatalities (people killed in road accidents): 1,382 in 2004, 1,284 in 2005 and 1,063 in 2006.
- Number of road accident fatalities for which at least one driver involved was impaired by alcohol: 67 (2004), approximately the same number as in 2005.
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by alcohol: 4.7%.
- Number of road accident fatalities for which at least one driver involved was
- impaired by drugs other than alcohol: probably no more than 1-2 fatalities pr. Year in 2004-2005. No assumptions for 2006.
- For alcohol impaired drivers, the definition of alcohol impaired, i.e. blood alcohol concentration level: Acceptable blood alcohol concentration level in The Czech Republic is 0.0 g/l (‰), i.e. every amount >0.0 counts as impaired.

Usability of the data for SPIs

- For both alcohol (2004 and 2006) and drugs (2004-2005) the data can be used to calculate the SPIs, though the number of fatalities with a driver impaired by drugs seems very small.

Quality of the data

- Both SPIs seem so small that there is reason to ask whether the figures for impaired drivers are complete. According to the Czech authorities all guilty drivers involved in fatal accidents are tested for alcohol.
- According to a study of the quality of the Czech data for alcohol-related fatal accidents in one district with about 1% of the Czech population (Sørensen, Assum, Eksler, Tecl 2008), the SPIs may be underestimated due to shortcomings in reporting practices. Drivers killed in single-vehicle accidents are not tested for alcohol. Drink drivers tend to be overrepresented in single-vehicle accidents. Moreover, the results of post-mortem are not always reported back to police. If the reporting practices are similar in the rest of the Czech Republic, the real value of the SPI is likely to be closer to the European average.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 4.5 % for 2006 and 3.4% for 2007.**
- **The drug SPI is 0.1 % for 2004.**

Literature

Sørensen, M., Assum, T., Eksler, V., and Tecl, J. (2008) *Safety Performance Indicator for Alcohol: Data Quality in Selected Countries and Comparison with Other Alcohol Indicators*. Deliverable D3.10a of the EU FP6 project SafetyNet.

4 Denmark (DK)

Data received from the country

- Number of road accident fatalities: 331 in 2005.
- 53 killed in accidents in 2005 where at least one driver of a vehicle where driver license is required was impaired by alcohol. Information for earlier years is available in Denmark.
- Data for drugs are not available. Drugs are seldom registered by the police because the test is very expensive.
- The limit for alcohol is > 0.50 g/l (‰) BAC.

Usability of the data for SPIs

- For alcohol the data could be used to calculate the SPI values, for drugs they could not.

Quality of the data

- No assessment of quality.

SPIs used by policy makers

- Unknown.

Illustration

- **The SPI alcohol for 2005 is 16.0%.**
- **The drug SPI is unknown.**

5 Germany (DE)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 5,842 in 2004 and 5091 in 2006.
- 704 fatalities in “alkoholunfälle” (alcohol accidents) in 2004. These are defined as “accidents in which at least one involved is under the influence of alcohol, the involved being all road users including pedestrians and bicycle riders.
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by alcohol: 11.4%.
- The BAC limit for “under the influence of alcohol” is 0.3 g/l BAC in case of accident involvement.
- According to the questionnaire data for drugs are not reliable.

Usability of the data for SPIs

- The data can be used to calculate the SPI for alcohol (2004 and 2006).
- Data for drugs are not reliable.

Quality of the data

- Quality seems good for alcohol for 2004. The data contains also impaired pedestrians and bicycle riders, which is what is needed for the long-term target SPI, but Germany is the only country to have this kind of data.
- The number of drivers involved in fatal accidents and tested for alcohol is not available for 2004.
- In 2006 7,540 drivers in total were involved in fatal accidents. 419 (5.6%) of these drivers were tested for alcohol. This is very low, consequently the question can be asked what the SPI value would be if a larger share of drivers involved in fatal accidents was tested for alcohol.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 12.1% for 2004 and 11.4% for 2006.**
- **Data for drugs are not reliable.**

6 Estonia (EE)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities and road accident fatalities for which at least one driver involved was impaired by alcohol for 2003-2005 is summarized in the following table. Data apply only to fatalities in accidents with impaired drivers, rather than impaired road users. Impaired = BAC 0.2 g/l (‰) or above.

| Year | 2003 | 2004 | 2005 |
|---|------------|------------|------------|
| Number of road accidents with fatalities | 145 | 154 | 149 |
| Number of road accident fatalities in them | 164 | 170 | 168 |
| Number of road accidents with fatalities involved by driver impaired by alcohol | 34 | 30 | 32 |
| Number of road accident fatalities in them | 40 | 36 | 35 |

- Definition: the legal alcohol limit for all drivers is BAC 0.2 g/l (‰).

Usability of the data for SPIs

- The data for alcohol can be used to calculate the SPI values.
- Data for drugs are not available.

Quality of the data

- For alcohol the data quality seems good.

SPIs used by policy makers

- Unknown.

Illustration

- The alcohol SPI is 20.8% for 2005.** This relatively high figure may in part be due to a low legal limit, but may also indicate that the data are more complete for Estonia than for most other countries.
- The drug SPI is unknown.

7 Greece (EL)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 1670 in 2004 and 1657 in 2006.
- Number of road accident fatalities in Greece in accidents where at least one driver was impaired by alcohol (above the BAC limit) in 2004: 159.
- Road accident fatalities per alcohol test results for 2004 in Greece are shown in the following table. Note that these data are not reliable, as all alcohol test results are not recorded by the Police.

| Unknown | Negative | 0.1-0.5 ‰ | 0.5-0.8 ‰ | 0.8-1.0 ‰ | 1.0-1.5 ‰ | >1.5 ‰ | No answer | Total |
|---------|----------|-----------|-----------|-----------|-----------|--------|-----------|-------|
| 6 | 41 | 5 | 44 | 21 | 38 | 56 | 10 | 221 |

- Percentage of fatalities in 2006 caused by accidents in which at least one driver involved was impaired by alcohol: 8.0 %.
- The limit for alcohol is > 0.50 g/l (‰) BAC.
- Data for drugs are not available.

Usability of the data for SPIs

- The data can be used for the calculation of SPIs for alcohol (2004 and 2006).
- Data for drugs are not available.

Quality of the data

- For 2004 the data are not reliable, as all alcohol test results are not recorded by the Police.
- In 2006 2,242 drivers in total was involved in fatal accidents. 1907 (85.1%) of these drivers were tested for alcohol.

SPIs used by policy makers

- Unknown.

Illustration

- Alcohol SPI is 9.4% for 2004.
- Alcohol SPI is 8.0 % for 2006 if SPI is calculated as alcohol positive drivers involved in fatal accidents divided by *all* drivers involved in fatal accidents.
- Alcohol SPI is 9.4% for 2006 if SPI is calculated as alcohol positive drivers involved in fatal accident divided by only the *tested* drivers involved in fatal accidents.
- Neither of the calculations is probably right (Cf. the description under Belgium). Thus, It is suggested to calculate the SPI under the assumption that the percentage of alcohol impaired drivers involved in fatal accidents among untested, involved drivers is half that of the tested drivers. Under this assumption the SPI is 8.7% for 2006.
- **The alcohol SPI is 8.7% for 2006**
- Drug SPI is unknown.

8 Spain (ES)

Alcohol & Drugs

Data received from the country

Spain does not have the data requested for the alcohol SPI, but data for killed drivers are provided as in the table below:

| Year | Total number of fatalities | Total drivers killed | Killed drivers tested by legal doctors | % killed drivers tested from total killed drivers | Positive for alcohol | % positive (1) |
|------|----------------------------|----------------------|--|---|----------------------|----------------|
| 2003 | 5,399 | 3,196 | 1,621 | 50,7% | 516 | 31.8% |
| 2004 | 4,741 | 2,861 | 1,349 | 47,2% | 398 | 29.5% |
| 2005 | 4,442 | 2,738 | 1,401 | 51,2% | 395 | 28.2% |
| 2006 | 4,104 | 2,569 | 1,360 | 52,9% | 364 | 26.8% |

(1) These figures apply to killed drivers rather than to all fatalities.

Positive \geq 0.5 g/l. In the case of professional and learning drivers \geq 0.3 g/l.

- Alcohol impaired drivers, positive: \geq 0.5 g/l (‰). In the case of professional and learning drivers \geq 0.3 g/l (‰).

Killed drivers tested positive for legal and illegal drugs – 2006

| | |
|-------------------------------------|------------|
| Antidepressants | 9 |
| Antidepressants and antipsychotics | 1 |
| Antidepressants and benzodiazepines | 4 |
| Antidepressants and barbiturics | 1 |
| Anticonvulsants | 2 |
| Barbiturics: | 1 |
| Benzodiazepines: | 34 |
| Methadone: | 2 |
| | 54 |
| Amphetamine | 1 |
| Amphetamine, MDMA, MDA and cannabis | 1 |
| Amphetamine, MDMA,MDA and cocaine | 1 |
| MDA and cocaine | 1 |
| MDMA and cocaine | 4 |
| Cannabis | 41 |
| Cannabis and cocaine | 9 |
| Cocaine | 75 |
| Opiates | 1 |
| | 134 |

Spain (ES)

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| | |
|--|-----------|
| Cannabis and benzodiazepines: | 1 |
| Cannabis, cocaine and benzodiazepines: | 2 |
| Cocaine and antidepressants | 2 |
| Cocaine and benzodiazepines: | 5 |
| Cocaine, cannabis, opiates, benzodiazepines: | 1 |
| Cocaine and methadone: | 4 |
| Cocaine and fenotiazines: | 1 |
| Cocaine, methadone, benzodiazepines: | 2 |
| Cocaine, opiates and methadone: | 1 |
| Cocaine, opiates, benzodiazepines: | 1 |
| Opiates, methadone: | 1 |
| | 21 |

Total killed drivers tested **1,360**

Assuming that the figures for the three main categories of drugs can be added, the percentage of drug positive drivers is 15.4% ($100 \times 209 / 1,360$).

Usability of the data for SPIs

- The data can partly be used for the calculation of SPIs for alcohol.
- The data for drugs can be used for the calculation of the drug SPI.

Quality of the data

- SPI for alcohol is percentage of killed drivers impaired by alcohol rather than percentage of all fatalities killed in accidents involving drivers impaired by alcohol. This may produce a bias towards a higher figure. The number or percentage of fatalities in accidents involving drivers impaired by alcohol is not available.
- In 2006 52.9 % of the killed drivers were tested for alcohol.
- The tested substances are all the drugs classified in groups. The drugs test is carried out on drivers killed in the same conditions as in the case of alcohol. The percentage of fatal drivers tested in 2006 was 52.9% for both, alcohol and drugs. The following substances are tested: cannabis, cocaine, opiates, amphetamines, benzodiazepines, MDMA, antidepressants, anticonvulsants and methadone.

SPIs used by policy makers

- One of the strategic objectives which is included in the Spanish Road Safety Strategic Plan 2004-2008 is the "Reduction in the percentage of killed drivers with blood-alcohol level ≥ 0.3 g/l". These are the figures for this strategic objective:

| Year | % Killed drivers with blood alcohol level ≥ 0.3 g/l (tested by legal doctors) |
|------|--|
| 2003 | 37.3% |
| 2004 | 36.1% |
| 2005 | 34.1% |
| 2006 | 30.4% |

The figures in this table are not comparable to the former table, as the BAC levels are different.

Spain (ES)

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Illustration

The alcohol SPI is 14.2% for 2006 if SPI is calculated as killed drivers positive for alcohol (364) divided by *all* killed drivers (2,569). The alcohol SPI for 2006 is 26.8% if the SPI is calculated as killed drivers positive for alcohol (364) divided by killed drivers tested for alcohol (1,360). Neither of the calculations is probably right (Cf. the description under Belgium). Thus, It is suggested to calculate the SPI under the assumption that the percentage of alcohol impaired killed drivers among the untested killed drivers is half that of the tested drivers. Under this assumption **the alcohol SPI is 21.7% for 2004 and 20.5% for 2006.**

The drug SPI for 2006 is 15.4% if based on the tested killed drivers only. If assumed that the prevalence of drivers not tested is half that of the tested drivers, **the drug SPI is 11.8 % for 2006.**

9 France (FR)

Alcohol & Drugs

Data received from the country

- The numbers of fatal accidents and road accident fatalities for 2000-2005 are indicated in the following tables.
- The following tables also indicate road accident fatalities for which the blood alcohol concentration level is known and road accident fatalities for which at least one driver was impaired by alcohol.

| Fatal accidents | 2000* | 2001* | 2002* | 2003* | 2004* | 2005** |
|---|--------------|--------------|--------------|--------------|--------------|-----------------|
| Number of fatal accidents | 6,811 | 6,920 | 6,549 | 5,168 | 4,766 | 4,857 |
| Road accident fatalities for which the blood alcohol concentration level of the involved drivers is known (drivers tested) | 4,428 | 4,326 | 3,899 | 2,990 | 2,693 | 4,287*** |
| Road accident fatalities for which at least one driver was impaired by alcohol | 1341 | 1349 | 1158 | 929 | 827 | 1203 |
| Percentage | 30.3% | 31.2% | 29.7% | 31.1% | 30.7% | 28.1% |

| Road accident fatalities (killed people) | 2000* | 2001* | 2002* | 2003* | 2004* | 2005** |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| Number of road accident fatalities | 7,643 | 7,720 | 7,242 | 5,731 | 5,232 | 5,318 |
| In road accident fatalities for which the blood alcohol concentration level of the involved drivers is known | 4,939 | 4,799 | 4,289 | 3,313 | 2,952 | 4,697 |
| In road accident fatalities for which at least one driver was impaired by alcohol | 1,512 | 1,554 | 1,300 | 1,050 | 926 | 1,355 |
| Percentage | 30.6% | 32.4% | 30.3% | 31.7% | 31.4% | 28.8% |

* Killed people at 6 days, ** Killed people at 30 days

*** Rather great difference between 2004 and 2005 is due to change of definition from killed within 6 days to killed within 30 days, according to Jean-Paul Repussard, DG TREN.

- Number of road accident fatalities in 2006: 4,709.
- Percentage of fatalities in 2006 caused by accidents in which at least one driver involved was impaired by alcohol: 29.7%.
- The authorized alcohol level is 0.5 g/l of blood. (0/00) It is 0.2 g/l (‰) for drivers of public transports.
- No data about the number of road accident fatalities for which at least one driver involved was impaired by drugs other than alcohol.

Usability of the data for SPIs

- For alcohol the available data allows the calculation of SPIs for 2000-2006.
- Data for drugs are not available.

Quality of the data

- In 2006 6,753 drivers in total was involved in fatal accidents. 5,678 (84.1%) of these drivers were tested for alcohol.
- An in depth study for France (Sørensen & Assum 2008) concludes that the SPI for France probably has the right level. There is some small different in the different

France (FR)

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references but it seems that this can be explained with different method to handle the share of untested drivers.

SPIs used by policy makers

- Unknown.

Illustration

- The alcohol SPI is 28.8% for 2005 (% of fatalities for which at least one driver was alcohol-impaired/fatalities for which drivers' BAC is known).
- The alcohol SPI is 29.7% for 2006 if SPI is calculated as fatalities in accidents involving alcohol positive drivers divided by fatalities in accidents involving *tested* drivers only .
- Alcohol SPI is 25% for 2006 if SPI is calculated as fatalities in accidents involving alcohol positive drivers divided by *all* drivers involved in fatal accidents.
- Neither of the calculations is probably right (Cf. the description under Belgium). Thus, it is suggested to calculate the SPI under the assumption that the percentage of alcohol impaired drivers involved in fatal accidents among untested, involved drivers is half that of the tested drivers. Under this assumption the **SPI is 27.3% for 2006**. Because the share of drivers tested for alcohol is as high as 84.1% the calculations under different assumptions produce rather similar results.
- Drug SPI is unknown.

Literature

Sørensen, M., Assum, T., Eksler, V., and Tecl, J. (2008) *Safety Performance Indicator for Alcohol: Data Quality in Selected Countries and Comparison with Other Alcohol Indicators*. Deliverable D3.10a of the EU FP6 project SafetyNet.

10 Ireland (IE)

Alcohol & Drugs

- No data are available.

11 Italy (IT)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 5,780 in 2004.
- "The presumed psychological-physical condition in road accidents" was "drunken" for 4,172 (72.2%).
- The limit for alcohol is > 0.50‰ BAC.
- No data were provided for drugs.

Usability of the data for SPIs

- Assuming the data for alcohol are correct, they can be used to calculate SPIs.
- Data for drugs are not available.

Quality of the data

- The quality of the data cannot be assessed. Because the SPI is extremely high, a request for confirmation was sent to the contact person, but no reply was received.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 72.2 % for 2004. This is extremely high, and will be considered incorrect.**
- **Drug SPI is unknown.**

12 Cyprus (CY)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 102 in 2005 (94 road accidents) and 86 in 2006.
- Number of road accident fatalities in 2005 for which at least one driver involved was impaired by alcohol: 23 (20 road accidents).
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by alcohol: 17.4%.
- Number of road accident fatalities in 2005 for which at least one driver involved was impaired by drugs other than alcohol (illegal drugs only): 3 (3 road accidents).
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by drugs: 8.1%.
- Alcohol limits in Cyprus until 10 of March, 2006 were 39 mg% in 100 mg of breath sample and 90 mg in 100 mg of blood sample. Since 10 of March, 2006 are 22 mg% in 100 mg of breath sample and 50 mg% in 100 mg of blood sample. This means that the limit is 0.9 ‰ BAC for 2005 data and 0.5 ‰ BAC for 2006 data.

Usability of the data for SPIs

- From the available data, SPIs for both alcohol (2006) and drug (2006) can be calculated.

Quality of the data

- The BAC limit was 0.9 BAC in 2005. With the reduction to 0.5 BAC in 2006 the SPI should be expected to increase. However, the SPI seems to have decreased.
- In spite of the high legal limit in 2005, Cyprus has a relatively high SPI figure.
- In 2006 52 drivers in total were involved in fatal accidents. 41 (78.8%) of these drivers were tested for alcohol and drugs.

SPIs used by policy makers

- Unknown.

Illustration

- Alcohol SPI is 22.5% for 2005.
- Alcohol SPI is 17.4% for 2006 if SPI is calculated as fatalities in accidents involving alcohol positive drivers divided by *all* fatalities.
- Alcohol SPI is 22.1% for 2006 if SPI is calculated as fatalities in accidents involving alcohol positive drivers divided by fatalities in accidents involving only the *tested* drivers.
- Neither of the calculations is probably right (Cf. the description under Belgium). Thus, It is suggested to calculate the SPI under the assumption that the percentage of alcohol impaired drivers involved in fatal accidents among untested, involved drivers is half that of the tested drivers. Under this assumption **the alcohol SPI is 19.8% for 2006.**
- **The drug SPI is 2.9 % for 2005 and 8.1% for 2006.**

13 Latvia (LV)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 442 in 2005 and 419 in 2007.
- In 2005 96 were killed in “accidents caused by drivers under the influence of alcohol (Statistics of road traffic accidents in Latvia. Road Traffic Safety Directorate, 2006).
- Percentage of fatalities in 2006 caused by accidents in which at least one driver involved was impaired by alcohol: 21.7%.
- Data for drugs are not available.
- The legal limit in Latvia is 0.5 g/l BAC for drivers with more than two years experience. For novice drivers, the limit is 0.2 g/l.

Usability of the data for SPIs

- The data allows the calculation of the SPI for alcohol (2005 and 2007), but not for drugs.

Quality of the data

- The figures from 2005 are taken from a printed report of the Latvian Road Traffic Safety Directorate. It is uncertain what “caused by drivers under the influence of alcohol” actually means.
- In 2007, 525 drivers in total were involved in fatal accidents, and all 525 (100%) these drivers were tested for alcohol. This indicates high quality for these data.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 21.7 % both for 2005 and for 2007.**
- **The drug SPI is unknown.**

14 Lithuania (LT)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 760 in 2005 and 739 in 2007.
- In 2005 113 people were killed in “road accidents caused by road users, who were under the influence of alcohol.” It is not known to the SafetyNet team whether these road users are drivers only or mostly, or whether bicycle riders, pedestrians and other road users are also included.
- Percentage of fatalities in 2007 caused by accidents in which at least one driver involved was impaired by alcohol: 9.3%.
- Legal limit of alcohol concentration in Lithuania is 0.4 g/l (‰) BAC.
- Alco tester read-out is proof of intoxication. (November, 2006).

Usability of the data for SPIs

- The data allows the calculation of the SPI for alcohol (2005 and 2007), but not for drugs.

Quality of the data

- For 2005 it is unclear whether “road users who were under the influence of alcohol” includes pedestrians and bicycle riders. If so, the SPI should be reduced to compare to other countries, except Germany which does include these road user groups. Moreover, the limit for “under the influence of alcohol” is not specified.

SPIs used by policy makers

- Unknown.

Illustration

- The alcohol SPI is 14.8 % for 2005 and 9.3 % for 2007.
- The drug SPI is unknown.

15 Luxembourg (LU)

Alcohol & Drugs

- No data were received.

16 Hungary (HU)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 1,284 in 2005.
- Number of road accident fatalities for which at least one driver involved was impaired by alcohol: 112 (The one driver is always considered the causer of the accident. Hungary has such data only about the person who is responsible for the accident). The number is clarified in the following table.

| Definition of alcohol impaired, i.e. blood alcohol concentration level | | | | | |
|--|-------|------------|-----------|-------|-------|
| BAC | <0.5% | 0.51-0.79% | 0.8-1.49% | >1.5% | Total |
| Number of fatalities | 4 | 16 | 47 | 45 | 112 |

- Number of road accident fatalities for which at least one driver involved was impaired by drugs other than alcohol: Hungary could deliver data about the influence of medicine, but not about other drugs.
- The alcohol limit is 0.0 g/l (‰) BAC, but the SPI can also be calculated for fatalities in accidents involving drivers with a BAC above 0.5.

Usability of the data for SPIs

- The data allows the calculation of SPIs for alcohol.
- Data for drugs are not available.

Quality of the data

- There is some problem with including the “causer” of the accident vs. all drivers. What is meant by “causer”?

SPIs used by policy makers

- Unknown.

Illustration

- The alcohol SPI is 8.4% (above 0.5‰ BAC) or 8.7% above 0.0 BAC for 2005 .
- Drug SPI is unknown.

17 Malta (MT)

- Data for alcohol are not available.
- Data for drugs are not available.
- The limit for alcohol is > 0.80 g/l (‰) BAC.

18 The Netherlands (NL)

Data received from the country

- Percent and number of officially recorded alcohol-related fatalities for 2000-2007 are summarized in the following table.

| Year | % of alcohol-related fatalities | Number of alcohol-related fatalities* |
|------|---------------------------------|---------------------------------------|
| 2000 | 8.1 % | 95 |
| 2001 | 7.3 % | 78 |
| 2002 | 9.8 % | 105 |
| 2003 | 7.0 % | 77 |
| 2004 | 8.5 % | 75 |
| 2005 | 8.3 % | 67 |
| 2006 | 5.5 % | 44 |
| 2007 | 6.2 % | 49 |

* adjusted for inclusion rate of fatally injured road users (not for underreporting of alcohol use)

Usability of the data for SPIs

- The data can be used for the calculation of SPIs for alcohol
- Data for drugs is not available.

Quality of the data

- Limit for “alcohol-related” is not specified, but is lower than the legal limit of 0.5 g/l.
- Fatally injured road users are not tested for alcohol. Therefore the number of alcohol-related fatalities is strongly underestimated by official figures.
- Based on a case-control study, the estimated proportion of alcohol-related fatalities for the period 2001-2004 was at least 25%.

SPIs used by policy makers

- Various numbers and percentages of alcohol-related fatalities and injuries, e.g. in long-term campaign on Drink-Driving.

Illustration

- **The official alcohol SPI is 6.2% for 2007, the estimated real alcohol SPI is 20-25%.**
- **The drug SPI is unknown.**

19 Austria (AT)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities (people killed in road accidents): 768 in 2005 and 730 in 2006.
- Number of road accident fatalities in 2002 for which at least one driver involved was impaired by alcohol: 46.
- Percentage of fatalities in 2006 caused by accidents in which at least one driver involved was impaired by alcohol: 6.2 %.
- Number of road accident fatalities for which at least one driver involved was impaired by drugs other than alcohol: not possible, because this variable is not part of the actual road accidents questionnaire which is used by the police.
- For alcohol impaired drivers, the definition of alcohol impaired, i.e. blood alcohol concentration level: 0.5 g/l (‰) BAC since 6.1.1998.

Usability of the data for SPIs

- The data allows the calculation of the SPIs for alcohol.
- Data for drugs are not available.

Quality of the data

- The alcohol SPI seems very small. A data-quality study shows that there is a methodological reason for the low alcohol SPI in Austria (Machata and Wannemacher 1998). Consequently, the conclusion is that the low SPI for Austria is due to the lack of testing of dead or unconscious drivers. For example in 2006 1,013 drivers in total was involved in fatal accidents, but only 37 (3.6%) of these drivers were tested for alcohol. It is, however, difficult to estimate a more correct SPI.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 5.9 % for 2005 and 6.2 % for 2006.**
- **The drug SPI is unknown.**

Literature

Machata, K. and Wannemacher, E. (1998) *Wie hoch liegt die Alkoholquote wirklich?* (How high is the alcohol rate in really?), in Bartl, Gl. And Kaba, A. *Alkohol im Strassenverkehr* (Alcohol in road traffic). Kuratorium für Verkehrssicherheit (KfV), Vienna.

20 Poland (PL)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities (people killed in road accidents): 5,444 in 2005 and 5,583 in 2007.
- Number of road accident fatalities in 2005 for which at least one driver involved was impaired by alcohol: 535.
- Percentage of fatalities in 2007 caused by accident in which at least one driver involved was impaired by alcohol: 8.6%.
- Number of road accident fatalities for which at least one driver involved was impaired by drugs other than alcohol: not available.
- For alcohol impaired drivers, the definition of alcohol impaired, i.e. blood alcohol concentration level: 0.2 g/l BAC.

Usability of the data for SPIs

- The data can be used for the calculation of SPIs for alcohol.
- Data for drugs are not available.

Quality of the data

- In 2007 6,749 drivers in total was involved in fatal accidents, and all 6.749 (100%) these drivers were tested for alcohol. However, the SPI value is rather low, and consequently there may be reason to check the data quality further.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 9.8 % for 2005 and 8.6 % for 2007.**
- **The drug SPI is unknown.**

21 Portugal (PT)

Alcohol & Drugs

Data received from the country

- The data for drivers involved in fatal accidents in 2004 and 2005 are summarized in the following table provided in January 2007 by the Direcção Geral de Viação, Observatório de Segurança Rodoviária (Data for drivers involved in accident by injury type and alcohol level for 2000-2005 were also provided).

| | Drivers killed | | Pedestrians killed | | Passengers killed | | Road user type unknown | |
|---------------|----------------|------------|--------------------|------------|-------------------|-----------|------------------------|------------|
| | 2004 | 2005 | 2004 | 2005 | 2004 | 2005 | 2004 | 2005 |
| BAC | | | | | | | | |
| 0-0.49g/l | 269 | 315 | 122 | 134 | 48 | 61 | 290 | 288 |
| 0.50-0.79 g/l | 22 | 19 | 4 | 3 | 2 | 4 | 16 | 15 |
| 0.80-1.19 g/l | 17 | 24 | 7 | 10 | 3 | 1 | 15 | 25 |
| >=1.20 g/l | 132 | 138 | 40 | 41 | 10 | 10 | 69 | 82 |
| Total | 440 | 496 | 173 | 188 | 63 | 76 | 390 | 410 |

- Number of road accident fatalities: 854 in 2007.
- Percentage of fatalities in 2007 caused by accident in which at least one driver involved was impaired by alcohol: 6.7%.
- The limit for alcohol is > 0.50 g/l (‰) BAC.
- Data for drugs are not available.

Usability of the data for SPIs

- The data can be used for the calculation of SPIs for alcohol (2007).
- Data for drugs are not available.

Quality of the data

- In 2007 1,177 drivers in total was involved in fatal accidents. 569 (48.3 %) of these drivers were tested for alcohol. The difference in the alcohol SPI between the years 2005 and 2007 shown below is so large that it is likely to be due to change in the data collection or the calculation method.

SPIs used by policy makers

- Unknown.

Illustration

- Alcohol SPI is 27.8% for 2005.
- Alcohol SPI is 6.7% for 2007 if SPI is calculated as fatalities in accidents involving alcohol positive drivers by *all* fatalities.
- Alcohol SPI is 13.8% for 2007 if SPI is calculated as fatalities in accidents involving alcohol positive drivers divided by fatalities in accidents involving only the *tested* drivers.
- Neither of the calculations is probably right (Cf. the description under Belgium). Thus, It is suggested to calculate the SPI under the assumption that the percentage of alcohol impaired drivers involved in fatal accidents among untested, involved drivers is half that of the tested drivers. Under this assumption **the alcohol SPI is 10.2% for 2007.**
- The drug SPI is unknown.

22 Slovenia (SI)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities in 2006: 263.
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by alcohol: 60 %.
- The limit for alcohol is > 0.50 g/l (‰) BAC.
- Data for drugs are not available.

Usability of the data for SPIs

- The data can be used for alcohol (2006).
- Data for drugs are not available.

Quality of the data

- In 2006 332 drivers in total was involved in fatal accidents. 309 (93.1 %) of these drivers were tested for alcohol.
- The alcohol SPI seems very high. Consequently, there may be reason to check the data further to verify this high percentage.

SPIs used by policy makers

- Unknown.

Illustration

- The alcohol SPI is 60% for 2006 if SPI is calculated as fatalities in accidents involving alcohol positive drivers divided by fatalities in accidents involving only the *tested* drivers.
- Alcohol SPI is 55.7% for 2006 if SPI is calculated as fatalities in accidents involving alcohol positive drivers divided by *all* fatalities.
- Neither of the calculations is probably right (Cf. the description under Belgium). Thus, It is suggested to calculate the SPI under the assumption that the percentage of alcohol impaired drivers involved in fatal accidents among untested, involved drivers is half that of the tested drivers. Under this assumption **the SPI is 57.9% for 2006**. Because the share of drivers involved in fatal accidents tested for alcohol is high, 93.1%, the calculation of the SPI under different assumptions produce quite similar results.
- The drug SPI is unknown.

23 Slovakia (SK)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 560 in 2005 and 579 in 2006.
- Number of road accident fatalities in 2005: offender impaired by alcohol 36 persons. Driver impaired by alcohol (wasn't offender) 31 persons. Pedestrian impaired by alcohol 5 persons.
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by alcohol: 7.3 %.
- An alcohol impaired driver is defined as a driver with a blood alcohol concentration of more than 0.0 g/l (‰).

Usability of the data for SPIs

- The data allows the calculation of the SPIs for alcohol.

Quality of the data

- Other road users than drivers are specified for 2005, but not included in the SPI. Legal limit is 0.0, which means that the SPI figure should be reduced to compare to countries with higher limits.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 12.9% for 2005 and 7.3% for 2006.**
- **The drug SPI is unknown.**

24 Finland (FI)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 379 in 2005 and 336 in 2006.
- Drink related fatalities in 2004: 91, and involving drunk drivers: 84. “Drink related” means one or more road users involved, impaired by alcohol. Consequently the figure for “involving drunk driver” should be used.
- Fatalities involving drunk drivers in 2005: 89.
- Percentage of fatalities in 2006 caused by accident in which at least one driver involved was impaired by alcohol: 26.2%.
- Fatalities for 2004 “involving other toxicant”: 7.

Usability of the data for SPIs

- The data can be used for both alcohol (2006) and drugs (2004).

Quality of the data

- The limit for “drink related” or “involving drunk drivers” for 2004 and 2005 is not specified. Neither is the definition of the two categories.
- The legal limit for alcohol is 0.5 g/l (‰) in Finland, and it seems reasonable to assume that “drink related” and “drunk drivers” mean drivers above this limit.
- Testing for “other toxicant” in 2004 may not be complete as it is more difficult than testing for alcohol.
- In 2006 467 drivers in total was involved in fatal accidents, and all 467 (100%) these drivers were tested for alcohol. This indicates high quality for these data.

SPIs used by policy makers

- Unknown.

Illustration

- The alcohol SPI is 23.4% for 2005 and 26.2% for 2006.
- The drug SPI for 2004 is 1.8%.

25 Sweden (SE)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 440 in 2005.
- In 2005 31 road users killed in accidents where a driver is “suspected to have been under the influence of alcohol”. As the reported statistics are for suspicion only, there is no defined limit for alcohol concentration, and the category may include cases of influence of other drugs than alcohol. The contact person, Thomas Lekander, Nov. 21, 2006: “This figure should not be used as it is clearly wrong and a strong underestimation of the real situation. In this context 25% could be used with a footnote saying that it is an estimate based on autopsies of killed drivers.” The results of blood samples analysed in hospitals are not available to the police for reasons of professional secrecy.

Alternative calculation of the SPI

Sørensen and Assum (2008) have studied the quality of the Swedish data, and they have presented an alternative calculation of the alcohol SPI for Sweden. In 63 fatal accidents with impaired motor vehicle drivers (11 fatal accidents involving impaired motor cycle or moped drivers were not included), 75 people were killed (Lindholm 2004). Those were all 2002 fatal accidents where an alcohol impaired driver was detected. A total of 532 people were killed in road accidents in Sweden in 2002, i.e. 14.1 % of fatalities resulted from accidents involving a driver impaired by alcohol. In this study the limit for alcohol impairment is 0.1 g/l (‰), whereas the legal limit in Sweden is 0.2 g/l (‰). If the people killed in the accidents involving alcohol-impaired drivers of MCs and mopeds were included, the percentage would be slightly higher. The number of fatalities in these accidents is, however, not stated, and this percentage can consequently not be calculated exactly. Given that, in average, the number of fatalities per fatal accidents is the same in MC and moped accidents as in other accidents, the percentage would be 16.5%. Whether 14% or 16%, this percentage is considerably smaller than the estimate provided by Sweden, 25%.

If the number of killed people per accident involving an alcohol-related driver was the same in 2007 as for the 63 fatal accidents with impaired drivers in 2002, i.e. $75/63 = 1.19$, an estimate can be made. In 2007 there were 426 fatal accidents and 471 fatalities on Swedish roads (SIKA 2008). 15% of the fatal accidents had alcohol-impaired drivers, i.e. $426 \times 0.15 = 63.9$ accidents with 1.19 fatalities on average, makes 76 fatalities in accidents with alcohol impaired driver. $(76/471) \times 100 = 16.1\%$, which is considerably less than the SPI of 25% provided by the Swedish Road Administration in 2006.

Usability of the data for SPIs

- The data allows the calculation of SPIs for alcohol.

Quality of the data

- See above: Being under the influence of alcohol is based upon police suspicion rather than tests, meaning that there is no specified limit and drivers under the influence of other drugs than alcohol may be included in the alcohol cases. Most likely a certain number of drivers with low BAC (0.2–0.8) go undetected.

Sweden (SE)

SafetyNet D3.11d – SPIs for Alcohol and Drugs: Updated Country Profiles

SPIs used by policy makers

- BAC-data from chemical analyses from autopsies of killed drivers and official statistics based on suspicion. Data from in-depth studies of fatal accidents are also used, but there is no national summary/report yet.

Illustration

- The alcohol SPI would be 25.0% for 2005 based on the data received from Sweden. The number is estimated on the basis of autopsies of killed drivers
- The drug SPI is unknown.

Conclusion

An alternative estimate made above, also based on data from the Swedish Road Administration gives a lower SPI, 16.1%. Even if these two estimates are based on statistics from different years, they are so different that there is reason to ask whether this difference can be explained by different years only. If not, which one is more correct? The 25.0% estimate made by the Swedish Road Administration is based on data for killed drivers. As drink drivers usually are overrepresented among drivers killed in single-vehicle accidents, an SPI calculation based on killed drivers will normally be too high. Consequently, the estimate based in the in-depth studies of fatal accidents is considered more correct, i.e. **the alcohol SPI is 16.1% for 2007.**

Sweden makes systematic in-depth studies of all fatal road accidents, including the blood alcohol concentration of drivers involved in these accidents. Consequently, it should be possible to produce the data needed for the SafetyNet alcohol SPI. Several similar figures, such as the percentage of fatal accidents that are alcohol-related, percentage of fatal accidents involving alcohol-impaired drivers or the number of fatalities resulting from alcohol-related accidents are available. Thus there is reason to ask why the exact data needed for the alcohol SPI cannot be made available, and more importantly, will it be possible to produce the correct alcohol SPI for Sweden in the future.

Literature

Lindholm, Magnus (2004) *Alkoholpåverkade personbilsförare inblandade i dödsolyckor, 2002. (Alcohol-impaired drivers involved in fatal accidents, 2002)*. Vägverket, publication 2004:161, Borlänge (Sweden).

Sørensen, M., Assum, T., Eksler, V., and Tecl, J. (2008) *Safety Performance Indicator for Alcohol: Data Quality in Selected Countries and Comparison with Other Alcohol Indicators*. Deliverable D3.10a of the EU FP6 project SafetyNet.

26 United Kingdom (UK)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 3,221 in 2004 and 3,172 in 2006.
- BAC impairment and accidents in 2004 are summarized in the following table (Transport Statistics Bulletin, Road casualties in Great Britain - Main results 2005. The Department for Transport, <http://www.statistics.gov.uk/CCI/nscl.asp?ID=8094>). Of 1,785 fatalities with a recorded BAC level, 25% were over the legal limit. For drivers/riders 21 % of those with a known level were over the limit, and 42% of pedestrians were over the legal limit for driving.

| Fatal crashes with BAC known in 2004 | | | | | | |
|--|---------|---------|---------|---------|-----------------------------------|------------------|
| Percentage of casualties with known BAC, exceeding | | | | | Total fatalities with BAC unknown | Total fatalities |
| 0.09 g/l | 0.5 g/l | 0.8 g/l | 1.0 g/l | 1.5 g/l | | |
| 37 % | 28 % | 25 % | 24 % | 17 % | 1252 | 3037 |

- The following table estimates the total casualties in accidents involving illegal alcohol levels when adjusting for underreporting (Road Casualties Great Britain, DfT, London, September 2005). Estimates for 2004 suggest that 6% of all road casualties and 17% of road deaths occurred when someone was driving whilst over the legal limit for alcohol.

| Estimates of total casualties in accidents involving illegal alcohol levels adjusted for underreporting | | | | |
|---|------------|---------|--------|--------|
| Year | Casualties | | | |
| | Fatal | Serious | Slight | Total |
| 2000 | 530 | 2,540 | 14,990 | 18,060 |
| 2001 | 530 | 2,690 | 15,550 | 18,770 |
| 2002 | 550 | 2,790 | 16,760 | 20,100 |
| 2003 | 580 | 2,590 | 15,820 | 18,990 |
| 2004 | 580 | 2,340 | 14,060 | 16,980 |
| 2005 (provisional) | 560 | 2,100 | 12,740 | 15,400 |

- Percentage of fatalities in 2006 caused by accidents in which at least one driver involved was impaired by alcohol: 17%.
- The limit for alcohol is > 0.80 g/l (‰) BAC.

Usability of the data for SPIs

- The data can be used for alcohol (2004, 2005 and 2006).
- Data for drugs are not available.

Quality of the data

- In 2006 5253 drivers in total were involved in fatal accidents. 2467 (47.0%) of these drivers were tested for alcohol. In 2004 altogether 58.8% have known BAC.
- The number of fatalities involving illegal alcohol levels is adjusted for underreporting using a method described in "Road Accidents Great Britain 1989". This method takes into account BAC data from Coroners, as well as using the proportion of accidents in the database with illegal alcohol levels as the basis of a scaling factor.

United Kingdom (UK)

SafetyNet D3.11d – SPIs for Alcohol and Drugs: Updated Country Profiles

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 17.0% for both 2004 and 2006.**
- The drug SPI is unknown.

27 Norway (NO)

Alcohol & Drugs

Data received from the country

- The number of fatalities in accidents involving at least one driver influenced by alcohol and/or drugs is presumably not available in Norway.
- Based upon reports from regional in-depth analyses of fatal accidents in Norway the alcohol and drugs SPIs can be estimated (Sørensen and Assum, 2008).

Usability of the data for SPIs

- The data allow the calculation of proxy SPIs for both alcohol and drugs.

Quality of the data

- The estimation of the SPIs is based on in-depth analyses of fatal accidents. However, only about 70% of the killed drivers are tested for alcohol, and an unknown number of drivers involved in fatal accidents are not tested for alcohol.
- The estimates are based on the assumptions that that the average number of fatalities per fatal accident is the same in alcohol-related and non-alcohol-related accidents and that the untested drivers involved in fatal accidents have the same percentages of alcohol and drug positive results as the tested drivers.

SPIs used by policy makers

- Percentage of general drivers impaired by alcohol or drugs or percentage of killed drivers under the influence of alcohol and/or drugs.

Illustration

- **The SPI alcohol for 2006: 11%.**
- **The SPI drugs for 2006: 8%.**

Literature

Sørensen, M., Assum, T., Eksler, V., and Tecl, J. (2008) *Safety Performance Indicator for Alcohol: Data Quality in Selected Countries and Comparison with Other Alcohol Indicators*. Deliverable D3.10a of the EU FP6 project SafetyNet.

28 Switzerland (CH)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities: 409 in 2005.
- Number of road accident fatalities in 2006 involving alcohol, drugs and medicine (“Einfluss von Alkohol, Drogen oder Medikamente” (Influence of alcohol, drugs or medicines)):
 - Alcohol/killed: 79.
 - Drugs/killed: 27.
 - Medicines/killed: 4.
 - Total alcohol, drugs and medicines: 96.
- Legal limit for alcohol 0.5 g/l (‰) from 1. January 2005. The significant reduction in fatalities due to alcohol from 2004 to 2005 of almost 25% can be explained by the reduction of the limit of blood alcohol from 0.8 ppm to 0.5 ppm by 1. January 2005.

Usability of the data for SPIs

- The data allow for the calculation of SPIs for both alcohol and drugs (2005).

Quality of the data

- The police do not systematically test all drivers involved in an accident. In some cantons dead drivers are not tested for alcohol or drugs even if they have obvious signs to alcohol. Altogether 7 substances are defined as illegal drugs: Cannabis, heroin/morphin, cocaine, amphetamine, methamphetamin, MDEA, MDMA. The legal limit is 0.0 ppm. Like in alcohol, there is no systematic test for illegal drugs in accidents, even if people are killed. 'Medikamente' are medical drugs. There exists no legal limit.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 19.3% for 2005.**
- **The drug SPI for 2005 is 7.6% (including medicines).**

29 Bulgaria (BG)

Alcohol & Drugs

Data received from the country

- Number of road accident fatalities in 2007: 1,006.
- Percentage of fatalities in 2007 caused by accident in which at least one driver involved was impaired by alcohol: 4.4%.
- The limit for alcohol is > 0.50‰ BAC.
- Data for drugs are not available.

Usability of the data for SPIs

- The data can be used for alcohol (2007).
- Data for drugs are not available.

Quality of the data

- The alcohol SPI is very low. Thus, there is reason to ask whether the figures for impaired drivers are complete. In the questionnaire it is answered that all drivers involved in fatal accidents are tested. However, the stated numbers indicate that the questions may have been misunderstood. It is stated that the total numbers of drivers in fatal accidents is 309, the total number of drivers tested for alcohol were 309 and the total numbers under influence of alcohol were 309. There is reason to check the data further before the alcohol SPI is accepted as correct.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 4.4% for 2007.**
- The drug SPI is unknown.

30 Romania (RO)

Data received from the country

- Number of road accident fatalities in 2007: 2,791.
- Percentage of fatalities in 2007 caused by accident in which at least one driver involved was impaired by alcohol: 5.7%.
- The limit for alcohol is > 0.0 g/l (‰) BAC.
- Data for drugs are not available.

Usability of the data for SPIs

- The data can be used for alcohol (2007).
- Data for drugs are not available.

Quality of the data

- The alcohol SPI is very low. Thus, there is reason to ask whether the figures for impaired drivers are complete. However, in the questionnaire it is stated that all drivers (3,251) involved in fatal accidents are tested for alcohol. Nevertheless, there is reason to study the data quality further.

SPIs used by policy makers

- Unknown.

Illustration

- **The alcohol SPI is 5.7% for 2007.**
- The drug SPI is unknown.