

Underage Drinking and the Risk of Involvement in Road Traffic Accidents



EUROPEAN TRAFFIC SAFETY CULTURE OBSERVATORY

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Youth & Road Safety

- Every day just over **1.000 young people** under the age of 25 years are killed in road traffic crashes around the world (1)
- Road traffic injuries are the **1st** cause of death for ages **15-19 years old**, the 3rd for ages 10-14 years and the 5th for ages 5-9 years old (2)
- Drink driving is one of the **three main killers** in the roads (3)
- According to the European Commission's estimates **25%** of all road deaths across the EU are **alcohol related** (4)
- **Alcohol** is the **leading cause of death** among teenagers due to its association with motor vehicle collisions, violence and crime (5)
- **EU is the heaviest alcohol consuming region in the world.** According to WHO, in one fifth of the population aged 15 years and above heavy drinking prevails at least once a week (6)

Why are young road users at high risk?

According to WHO (2004) (7)

- **Road environment** (e.g. a mixture of high-speed motorized traffic with vulnerable road users)
- **Developmental factors** (e.g. the human brain which is responsible for the integration of information and impulse control are still developing, maturing not only in physiological terms, but also in social terms)
- **Peer influence** (teenagers can be led by what is considered “cool”, not necessarily what is safe).
- Other **social pressures** (marketing, media, social media influence)
- **Inexperience** (young people and young male in particular, tend to overestimate their skills and to underestimate the complexity of the traffic situation)
- **Youth - related risk taking**

Youth-related risk taking

- Risk-taking behaviour may allow adolescents to feel a **sense of control** over their lives or sometimes to **oppose authority** (8)
- Research shows that there are high levels of 'sensation seeking' behaviour among young adults and a need to maintain a heightened level of physiological arousal (8)
- Sensation-seeking intensifies the relation between traffic accidents and risky behaviours, such as speeding and driving under the influence of alcohol (9)
- Sensation seeking has been shown to rise between the ages of 9 and 14 years, peaking in late adolescence or the early 20s, and then declining steadily with age (10,11)
- Across all ages and particularly among the young, sensation-seeking is more common among males than females.

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Main objective:

- ✓ Highlight factors that significantly contribute to the increased likelihood of young people to become involved in road crashes due to alcohol consumption.

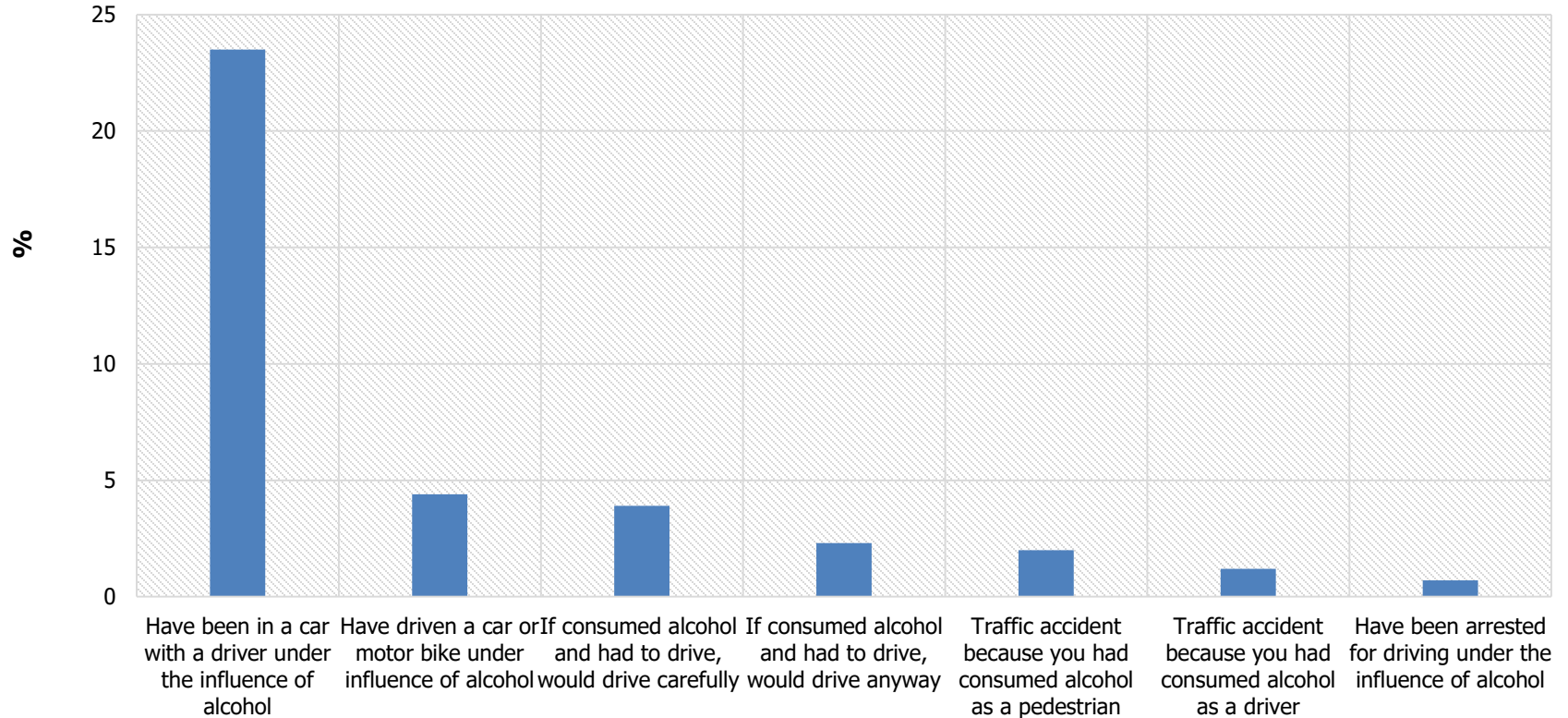
Aim:

- ✓ To develop **intervention** and **prevention** programs based on cross cultural issues and references to other countries.
- ✓ To **inform** national traffic safety policies with evidence-based suggestions for measures and actions to be taken.

- **N=782**
- **Gender:**
450 (57.5%) male - 315 (40.3%) female
- **Age:** 14 -17 years /mean of 15.43 (SD = 0.99)
- **Density of residence:**
445 (56.9%) big city
223 (28.5%) small town
106 (13.6%) village
8 (1.0%) did not report place of residence
- **45 countries**
- **12 geographical regions**

**Location: 23rd World Scout Jamboree,
(28.07-08.08 2015) Japan**

Risk of traffic accident due to alcohol



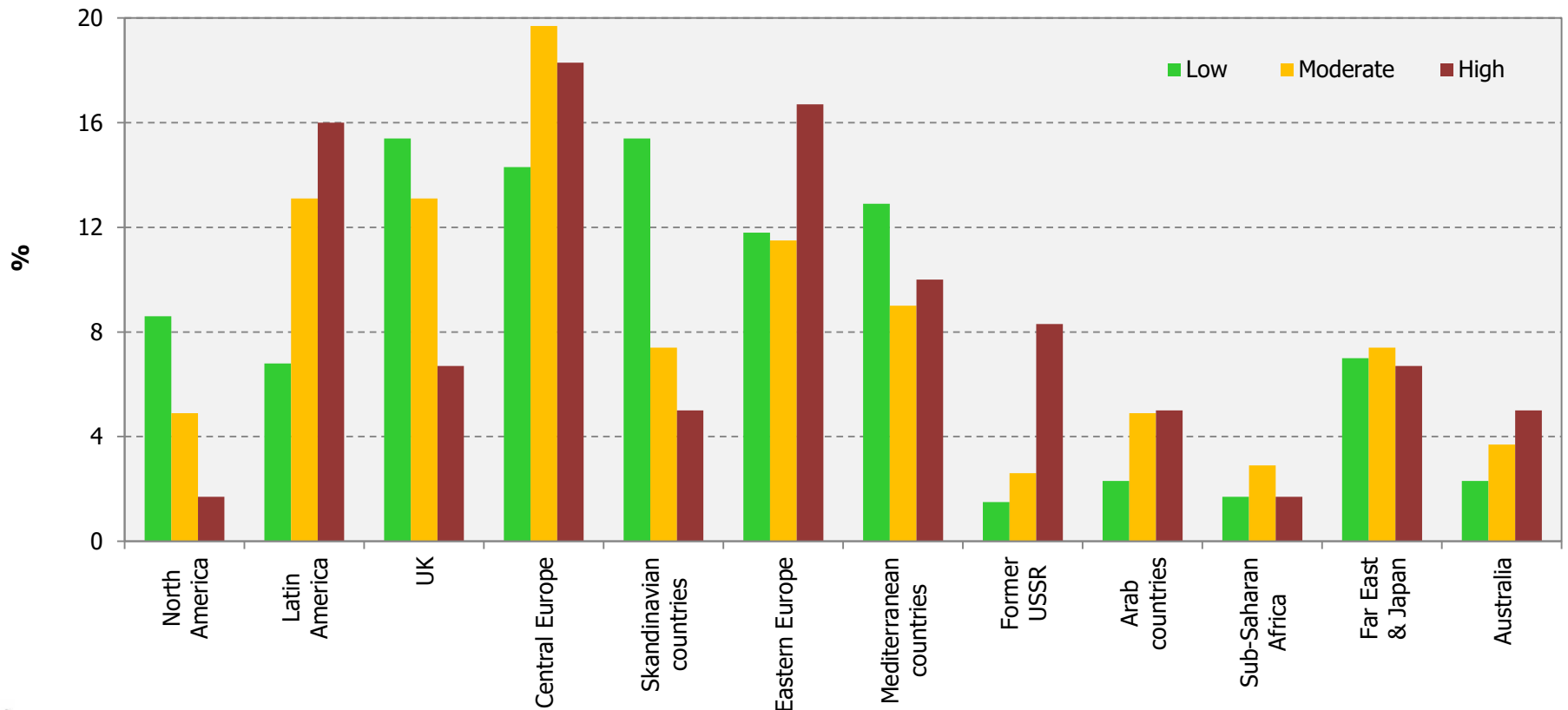
Indicators of the accident risk due to alcohol composite score.

Risk of traffic accident due to alcohol

- **23.5%** have been in a car with a driver under the influence of alcohol.
- **4.4%** of the participants have driven a car or motor bike under the influence of alcohol.
- **3.9%** would risk driving carefully at a low speed if they had consumed alcohol.
- **2.3%** would drive anyway if they had consumed alcohol and had to drive.
- **1.2%** have been involved in a traffic accident because they had consumed alcohol as drivers and another **2%** have found themselves in the same condition as pedestrians.
- **0.7%** have been arrested for driving under the influence of alcohol.

Even though the above numbers seem to be low, one should keep in mind that the participants are underage and not holding a driver's licence, thus the reported answers indicate risky activities related to drinking and driving from a very early age.

Accident Risk due to alcohol consumption per geographical region



Accident Risk due to alcohol consumption per geographical region

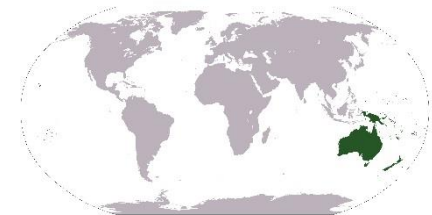
Low accident risk regions:

- North America
- Europe
- Scandinavian countries



High accident risk regions :

- former USSR
- Eastern Europe
- Latin America
- Australia



Other important findings

	Accident risk due to alcohol
Age at first alcohol use	-.049
Alcohol consumption (last 60 days)	.100*
Ease of alcohol access	.161***
Positive Attitudes towards Alcohol	.161***
Negative Attitudes towards Alcohol	-.174***
Proactive Measures Against Alcohol	-.151***
Legal Measures Against Alcohol	-.056
Traffic perceived as Dangerous	.051
Traffic perceived as Demanding	-.004
Traffic perceived as Safe	-.094*

Pearson product-moment correlation coefficients of accident risk due to alcohol with other alcohol related practices and attitudes

Other important findings

- **Accident risk due to alcohol is positively related to alcohol consumption**, i.e., the **higher** the alcohol consumption, the higher the accident risk due to alcohol.
- The **easier the access** of a teenager to alcohol (e.g., at home, with friends, in bars or shops), the **greater the risk** of getting involved in a traffic collision.
- Young people's agreement with **proactive (as opposed to legal) measures** against alcohol is related to **lower** chances of being engaged in road crashes due to alcohol.
- **Perceptions** of the traffic conditions in **home country as safe** are associated with **lower** risk of being involved in a traffic collision due to alcohol.
- The more **positive attitudes** an adolescent holds in relation to alcohol consumption, the **higher the risk** of being involved in a traffic collision.
- The more **negative attitudes** an adolescent holds with regards to alcohol consumption, the lower the risk of being involved in a traffic collision.

Conclusions

- **Geographical regions** seem to be differentially related with accident risk due to alcohol.
- The **easier the access** to alcohol, the greater is the risk of involvement in a traffic collision.
- The more **positive attitudes** an adolescent holds in relation to alcohol consumption, the higher the risk of being involved in a traffic collision.
- Young people's **negative attitudes** towards alcohol consumption are related to lower probability of being involved in road crashes.
- The **safer** is considered the **traffic** in one's home **country**, the lower is the risk of being involved in a traffic collision.

*Demographic factors such as gender, religion, density of residence and age of first alcohol use were **not** significantly related to accident risk due to alcohol.*

Interventions and policy

In many countries, the scale of the problem is not well understood, there is little public awareness of the problem and legislation and enforcement are often inadequate. Therefore, a number of measures is suggested:

- *Research*
- *Raise awareness*
- *Educational programs*
- *Awareness campaigns*
- *Legislation*
- *Enforcement*



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