

# Risk taking and injuries among young people



## Policy briefing

### Background

Exploring new challenges in life and testing the limits of performance are essential aspects of physical, personal and social development of young people.

But certainly, risk taking life styles among adolescents are also a major factor contributing to increased injury risk in this age group.

In the EU-27, injury is the first cause of death in young people between the ages of 15-24 years. Every half an hour a young person dies needlessly due to an injury. Two-thirds of fatal injuries in young people result from accidents in traffic, in workplaces or in leisure time activities. The remaining one-third is due to violence and suicide.

While these figures are alarming, the good news is that injuries are preventable.

### Defining risk taking

Risk-taking may be defined as voluntary exposure to risk and danger, which is always a trade-off between short-term gains and potential long-term adverse consequences. Examples of risk-taking behaviours are drinking and driving, binge drinking, self-harm, violent behaviour, unsafe sex, cannabis use, and engaging in risky sports, i.e. behaviours associated with an risk of physical harm.

Young people are often well aware of the dangers of risky behaviours, but they are more inclined than adults to engage in them. Risk taking behaviour is not irrational. Adolescents seem to have an increased need for new and challenging stimuli. Experiences which exceed performance limits are highly attractive to adolescents. Risk taking also favours acceptance within the peer group, higher self-esteem and experience. Therefore we better focus on reducing the harm associated with risk behaviour rather than intending to minimise the risk taking behaviour itself.

Risk-taking, especially when combined with consuming alcohol and/or drugs, is a major contributing factor to injury. There is also a strong association between different categories of risk taking behaviour, such as antisocial behaviour, risky driving and sexually

promiscuous behaviour. Young people engaging in multiple risk-taking behaviours, that means more than one risk type behaviour, are ten times more likely to experience a traumatic injury than those who do not.

### Scale of the adolescent injury problem

More than 20,000 young people lose their lives each year in fatal injuries. 65% of all injury deaths are related to this age group. Twice as many young people in the EU27 die of fatal injuries than all other causes of death combined such as cancer and diseases of the circulatory, respiratory and nervous systems. In particular young males are at risk, as 75% of all fatal injuries in 15-24 year olds relate to males.

Two-thirds of these fatal injuries in young people are due to *unintentional injuries*, i.e. accidents in road traffic, at the workplace, poisonings, drowning and falls. The remaining one-third is a result of *intentional injuries* due to violence and suicide and self-harm.

There is a four-fold difference in youth injury death rates among Member States, varying from 17 injury deaths per 100,000 15-24 year olds in the Netherlands to 80 per 100,000 in Lithuania.

*The size and pattern of differences in death rates across Europe indicates substantial potential for reducing the burden of youth injuries by extending existing efforts across countries.*

Alcohol use is a significant risk factor for both unintentional and intentional injuries in young people. It is estimated that around 40% of all injuries are attributed to alcohol consumption, in particular among males.

### Unintentional injuries

Road traffic injuries are the most common cause of accidental injury (74%), followed by poisoning injuries (6%), falls (4%) and other unintentional injuries (16%).

### Road traffic injuries

The risk of traffic injuries is significantly higher for young people than for any other age group, resulting in a 17/100 000 mortality rate. The mortality rates related to traffic injuries in countries with available data ranged between 8–32/100.000. Lithuania,



Greece and Latvia had the highest mortality rates while the Netherlands, Finland and the United Kingdom had the lowest rates. Fortunately, the trend in young people's mortality from transport injuries in the EU seems to be presently declining: an overall fall of 20% was seen from 1999 to 2005.

Travel patterns change from childhood to adulthood and this influences how people get injured in traffic. For most of the young people, traffic deaths (80%) are due to car or motorised two-wheeler related injuries, whereas cycle and pedestrian deaths account for the remaining one fifth of all traffic deaths. Traffic accidents involving young people are more common in evenings and during weekends. Lack of experience in road traffic, over-confidence in newly learnt skills, speeding and neglect of using safety belts are known risk factors.

#### *Poisoning*

Poisonings account for 6% of young people's unintentional injury deaths in the EU27 and alcohol is responsible for up to 70% of these poisonings. Other poisonings are caused by the intake of different toxins including, for example, harmful chemicals, pesticides, pharmaceuticals and paraffin. Males are more likely than females to die from poisoning. Alcohol-related poisoning mortality for this age group was 1 /100 000 in 2005. However mortality rates vary significantly across the EU27 with Estonia, Greece, Latvia and Finland having the highest rates and Portugal, Austria and Germany the lowest rates of poisoning mortality. Poisonings decreased on average by 6% from 1999 to 2005 in the EU27; however, in some countries such as Estonia and Greece the development was reversed and the mortality increased during this period of time.

#### *Drowning injuries*

Drowning injuries account for less than 5% of all fatal unintentional injuries among young people aged 15–24 in the EU27. In 2005, young people's mortality from drowning was 1/100 000 in the region. Most of these fatal drowning injuries occurred in Lithuania, Estonia, Romania and Latvia whereas in Malta, Germany, and the United Kingdom the mortality rates were lowest. Fatal drowning injuries decreased by 24%

from 1999 to 2005 in the EU27. Not all drowning injuries lead to death: many submersion victims are injured severely for life.

Most of drownings involving young people occur in open waters rather than in pools or bathtubs. In the EU27, young males' drowning mortality is more than fourfold higher than that for young females. It has been suggested that males have higher drowning mortality rates due to increased exposure to water and riskier behaviour, such as swimming in natural bodies of water instead of swimming pools, swimming at night, boating without life-jackets, swimming alone, and drinking alcohol before swimming or boating. Approximately every third young drowning victim is under the influence of alcohol.

#### *Falls*

Fall-related mortality represents 4 % of the total mortality from unintentional injuries. Young people's fall-related mortality is low: in 2005, mortality among young people due to falls was less than 1 /100 000 in the EU27. However, falls represent an important cause of morbidity and disability in young people – a large part of fall injuries occur in sports, during recreational activities and at work. In 2005, the mortality rates for young people were high in the Baltic countries and low in the Netherlands, Portugal and Hungary. On average, in the EU27, mortality due to unintentional falls seems to be declining. However, the trend is not parallel in all of the countries with available data as, for example, in Estonia and Latvia mortality from falls increased between 1999 and 2005.

#### *Sports injuries*

Sports injuries rarely are lethal; however, they often result in a great many acute injuries and long-term impairment. Injuries may reduce the many health benefits gained by sports. Since sports participation is one of the most popular activities in this age group, sports-related injuries should be considered to be an emerging public health problem, at least for this age group.

According to IDB data (2002–2005) from five EU countries (Austria, Denmark, France, Greece and the United Kingdom)



among 15–19-year-olds, sports accidents accounts for 41% of all injuries treated in hospitals, whereas among 20–24-year-olds the corresponding proportion was 32%. Young men are more likely than women to sustain a sports injury and to be treated in hospital for it. Ball sports account for about half of youth sports injuries treated in hospitals. When exposure, i.e. number of sports hours practiced, is taken into account, rugby is considered to be the most injurious activity followed by football and hockey.

#### *Work injuries*

Young workers are more often involved in non-fatal occupational injuries than older workers, but fortunately their injuries are less often fatal. In 2004 in the EU15 young people aged 15–24, representing 9% of the work force, were involved in 651 548 occupational injuries, which was 16% of all work-related injuries in that region. In 2002–2004 the average mortality rate among 15–24-year-olds was less than 1/100 000 in the EU27.

Farms, construction sites and manufacturing industries are considered to be the most hazardous working places, also for young people. Lack of experience, insufficient training in occupational safety, frequent job changes and lack of supervision contribute to young people's increased risk at work.

#### *Intentional injuries- suicide and self-harm*

In the EU27, the overall suicide mortality among young people was 7/100 000. In 2005, in the countries with available data, the mortality rates varied between 2 and 21/100 000 with Lithuania having the highest and Greece the lowest rate of suicide or intentional self-harm mortality. Between 1999 and 2005, mortality related to suicides and deliberate self-harm decreased by 15%.

Young males' suicide mortality is fourfold higher than that in young females. About one third of the suicide victims had a previous suicide attempt.

Self-harm and suicides are often closely related, and risk-factors for self-harm are quite similar to those for suicide. They include psychological, biological, social and environmental factors and factors related to

personal history. The trigger for self-harm and suicide can be an unfortunate event, such as a relationship breakdown, interpersonal problem or financial difficulty. But depression or other psychiatric disorders, affiliations with deviant peer groups, binge drinking, and being victimised by violence or bullying, also are important associated contributing factors.

#### *Intentional injuries- interpersonal violence*

Interpersonal violence can take many different forms, e.g. bullying, gang violence, sexual aggression, assaults and homicides. As a cause of death interpersonal violence is not very common among young people aged 15–24: in most of the countries mortality due to homicides and assaults was below 1 /100 000 and it has decreased from 1999 to 2005.

However, studies on non-fatal violence indicate that for every violence-related death among youth there are 20–40 victims of violence receiving hospital treatment. The results from the international HBSC-study indicate that fighting and bullying are common among young people, as one third of adolescents at age 15 report having experienced each of them.

Different kinds of biological, psychological, behavioural, social and cultural factors are connected with young people's potential for violent behaviour. For example, the presence of gangs, guns and drugs, availability of alcohol, poor social integration, fast demographic change in youth population, modernisation and urbanisation, income inequality and weak governance are favouring a climate that supports violence.

Young people are more likely than the population in general to become both victims and perpetrators of non-fatal violence.

Most of the victims and perpetrators of youth violence are male, although in intimate partner and sexual violence the victims are more commonly female. Most of the victims of sexual trafficking are less than 25 years old.

#### **Prevention**

Examples of effective actions for reducing injury risks for young people have been



(AdRisk Good Practices Guide, 2008):

- In road traffic regulatory measures and strict enforcement have been proven to be successful, such as graduated driver licensing for novice drivers, lowered speed limits, lowered drink driving (BAC) limits, full-face helmets for motorcyclists. Promotion of seatbelt use and bicycle helmets is to be recommended as well as the provision of late-night transport.
- As to sports safety there are numerous examples of effective measures such as warming-up exercises and balance training, mandatory use of ski helmets and mouth guards in field hockey.
- At work novice employees should receive special training sessions on specific work tasks and related safety aspects. In known high risk occupations protective equipment should be mandatory and strictly enforced.
- As to preventing violence, school-based violence prevention interventions and mentoring programmes teaching problem solving skills has been proven to be effective to decrease the likelihood of drug use and to reduce self-reported forms of antisocial behaviour.
- Social development programmes that concentrate on emphasising social competence and skills can prevent youth violence. School-based violence prevention interventions are most effective when they are backed up by other changes in the community, i.e. are part of a whole school curriculum, run over multiple sessions and involve family and community.
- Concerning substance abuse: life skill development programmes have been found to be effective to help young people to develop essential skills found to significantly reduce alcohol and drug abuse and violence.

Interventions that target a variety of aspects, embedded in a wider context, aiming at different target groups like community based programmes, including education, enforcement and engineering, are most likely to be effective. That means, community programmes involving the cooperation of local authorities, agencies and individual citizens and comprising changes to the physical environment, information, education and supervision.

### ***What more can we do?***

Given the high injury rates among young people, governments in the region should place injury prevention and safety promotion for young people higher on the public health agenda. They should invest more efforts in implementing the Council Recommendation on the prevention of injury and the promotion of safety adopted in May 2007 as well as the WHO European Regional Resolution RC55 from September 2005. They should ensure that safety, as well as healthy development of young people, is a priority within all relevant policies and programmes on injury prevention and is being included in relevant interdepartmental plans as well as plans specific to certain sectors like road transport, workplace environment, education system or in the community.

The existing injury control policies and programmes, mainly based on legislation and voluntary regulations and standards, have significantly contributed to reducing the number of injuries of young people in the last few decades. These regulations and relevant enforcement measures need to be maintained at the highest possible level of performance quality.

### ***Risk competency training***

However, youth should be seen as a resource and not as a nuisance. Therefore new approaches are required to address the main determinant of injuries among young people: their risk-taking behaviour. Young people's exploring new challenges does not have to lead to serious or even fatal injury. Challenges can be still explored and limits tested without risking life and limb. Training and education need to support young people in developing their competencies and skills necessary to identify and assess potential risks and to cope effectively with those risks. It does not make sense however to simply teach "do's", and "don'ts" to young people.

Risk competency training schemes and curricula developed for school education, vocational training, driver education or sports training as well as in extra-curricular youth work, can significantly increase young people's competencies and skills in coping with risks in every day life.



There are ample opportunities for systematic risk competence development and competence training with young people in different settings, for instance in:

- Road traffic, by integrating risk competence training in road safety education schemes and driver rehabilitation training and in programmes for graduated licensing.
- Schools: by developing and promoting a school programme for risk competence building, training standards for teachers and proper arrangements for letting youth play an active role in these programmes.
- Sports: by developing guidelines and training standards for safety and risk competence in specific sport areas targeting young people, and implementing training schemes for trainers.
- Extra curricular youth settings (youth work): by integrating risk competence and life skill development in policies for youth work, disseminating effective good practices for developing risk competence, supporting the development of favourable settings for learning risk competence in the public space (e.g. adventure areas) and by developing youth pilot projects based on the needs of target groups in specific social settings.
- Workplace and vocational training: by mainstreaming risk competence development in programmes for occupational safety and health in different sectors with a specific focus on young workers.

For such injury prevention and safety promotion training and education programmes to be truly effective, adolescents should be a key partner in their development. Youth are the experts with respect to their own matters and they know best how to communicate the issues with their peers.

The EC sponsored AdRisk “European Action on adolescent and injury risk” project identified 35 tools in various EU-countries to develop risk competency amongst youth. These tools have been compiled into a toolbox to provide professionals and volunteers working with young people with ideas on how to develop safety promotion projects with adolescents. The toolbox contains videos, leaflets, fact sheets, manuals, video clips, instructor’s tools, campaign materials,

brochures, questionnaires, guidelines, etc. It includes examples of workshops with young people addressing all kinds of risk-taking behaviour and documentaries on adolescents and risk-taking behaviour. Along with the AdRisk Good Practices Guide and the AdRisk European Situation Analysis, the toolbox enables professionals and volunteers to engage in actions in local settings.

AdRisk resource materials available as downloads [www.adrisk.eu.com](http://www.adrisk.eu.com)

- *“Injuries and risk-taking among young people in Europe – The European Situation Analysis”* which provides an overview on the living conditions and health behaviour of young people as well as facts and figures concerning intentional and unintentional injuries among young people. Summary report also available.
- *“Tackling Injuries among Adolescents and Young Adults in the EU: Strategy and Framework for Action”*. The document points out efficient strategies of the past and suggests supplementing approaches such as risk competence development within a framework of health promotion. The main areas of interventions are presented
- *“Good Practices Guide to Prevention of injuries among Young People”* that documents good practices and case studies in Europe on the field of injury prevention for adolescents
- *“Guidelines for National Action”* which is a guide for initiating national action on adolescents and injury prevention in Europe.
- With the *“AdRisk Toolbox”* the project also proposes tools for implementation (campaign materials, teacher’s tools, videos, guidelines) that are available online at [www.adrisk.eu.com](http://www.adrisk.eu.com)



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For further information see:  
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