



World Health
Organization

REGIONAL OFFICE FOR Europe

EUROPEAN FACTS AND GLOBAL STATUS REPORT ON ROAD SAFETY 2013



**EUROPEAN
FACTS AND
GLOBAL
STATUS
REPORT ON
ROAD SAFETY
2013**

Francesco Mitis and Dinesh Sethi

Abstract

This fact sheet presents the status of road safety in the WHO European Region and provides a baseline assessment of how far 51 countries have come in implementing the recommendations of the *World report on road traffic injury prevention*. It also updates the results of the *European status report on road safety*. In the Region, road crashes annually kill 92 492 people, a 25% decline in the past three years. The burden from nonfatal injury and disability is large, as are the economic costs. Road traffic injuries are still the leading cause of death among people 5–29 years old. Vulnerable road users such as pedestrians, cyclists and users of motorized two- and three-wheelers constitute 43% of the people dying from road traffic injury. Countries differ greatly in mortality rates for road traffic injuries; the average in low- and middle-income countries is more than twice as high as in high-income countries. This report analyses the legislative response and policy action of countries on five main risk factors: speed, drink-driving, use of helmets, use of child car restraints and use of seat-belts. Although half the countries have comprehensive legislation on all five risk factors, areas of future priority action have been identified: narrowing the gap between countries with the lowest and highest mortality rates; providing better protection for vulnerable road users; increasing the number of countries with comprehensive legislation and improving the enforcement of existing legislation; improving data collection systems, especially for non-fatal cases; and developing national policies with targets to reach the goals of the Decade of Action for Road Safety 2011–2020.

Keywords

Accidents, traffic – statistics and numerical data

Accidents, traffic – economics

Safety management – organization and administration

Wounds and injuries – prevention and control

Europe

ISBN: 978 92 890 0297 4

Address requests about publications of the WHO Regional Office for Europe to:

Publications

WHO Regional Office for Europe

UN City, Marmorvej 51

DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (<http://www.euro.who.int/pubrequest>).

© World Health Organization 2013

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Front cover photo credit: Istockphoto

Key facts

- › A total of 92 492 people die annually from road traffic injuries in the WHO European Region.
- › Large disparities still exist between parts of the Region, with 66% of these people dying in low- and middle-income countries.
- › Pedestrians, cyclists and users of motorized two- and three-wheelers are vulnerable road users and comprise 43% of the people dying from road traffic injuries, both in the European Union (EU) and in the Commonwealth of Independent States (CIS).¹ The proportion of deaths among cyclists and users of motorized two- and three-wheelers has increased. Pedestrian deaths have increased as a proportion of total road deaths in the EU.
- › Young men have a higher risk.
- › For every person dying from road traffic injuries, 23 people are admitted to a hospital and 112 attend an emergency room, representing a huge drain on health services.
- › Road traffic injuries reduce a country's gross domestic product by up to 3.9%.
- › Only 15 countries collect comprehensive information on health and disability using standardized definitions.
- › Half the countries in the Region have comprehensive legislation to control five main risk factors.
- › Eleven countries still have urban speed limits exceeding 50 km/h.
- › About two thirds of countries have a helmet law applying to all riders and all engines and requiring helmets to meet standards.

The first *Global status report on road safety: time for action (1)* was published in 2009 with the accompanying *European status report on road safety: towards safer roads and healthier transport (2)* and reported that about 120 000 people die annually from road traffic injuries in the WHO European Region. In 2010, the United Nations General Assembly proclaimed a Decade of Action for Road Safety 2011–2020 to reduce road deaths from 2011 to 2020. To document baseline indicators for monitoring progress towards these goals, WHO undertook a second survey: *Global status report on road safety 2013: supporting a decade of action (3)*. Key indicators were selected from the five main pillars of the Decade: (1) road safety management; (2) safer roads and mobility; (3) safer vehicles; (4) safer road users; and (5) post-crash response. In synergy with the Decade, the WHO Regional Office for Europe has proposed road safety as a priority area in *Health 2020: a European policy framework supporting action across government and society for health and well-being (4)*.

This fact sheet reports on the baseline measurements for the WHO European

Region. A total of 51 of the 53 Member States of the WHO European Region participated, covering up to 99.4% of its population. Data were collected at the country level with the involvement of multisectoral actors.

Fewer people dying from road traffic injuries in the WHO European Region

In 2010, 92 492 people died from road traffic injuries, 25% fewer than those reported in 2007. During this period, the number of registered vehicles increased by 6%, suggesting that road safety interventions have had mitigating effects despite increased exposure.

Inequalities persist in the WHO European Region

Death rates differ greatly within the Region (Fig. 1). Two thirds of those dying (66%) live in low- and middle-income countries, where mortality rates are more than twice as high (15.1 deaths per 100 000 population) as in high-income countries (6.3 per 100 000) and where 45% of the Region's population lives.

The low rates in high-income countries show that deaths can be prevented. Action is needed to reduce inequalities and save additional lives.

Almost half those dying are pedestrians, cyclists or motorcyclists

Forty-three per cent of the people dying in road traffic in the Region are vulnerable road users (27% pedestrians, 12% users of motorized two- and three-wheelers and 4% cyclists), and 50% are car occupants. Compared with 2007 (57% of deaths), the proportion of car occupant deaths (49% of deaths) in the EU decreased. The EU has proportionately fewer pedestrians (20%) dying and more cyclists (7%) and users of motorized two- and three-wheelers (18%). Compared with the EU, the situation in the CIS is similar for the proportion of car occupants among those dying (52%) but with a greater proportion of pedestrians (33%); the proportion of pedestrians among those dying declined in the CIS (from 37% in 2007 to 33% now) (Fig. 2).

¹ This group of countries includes all the official and unofficial members as of 2006: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Young men at higher risk

Seventy-five per cent of those dying are men, and more than half are 15–44 years old (54%), with 29% among those 15–29 years old and 25% among those 30–44 years old.

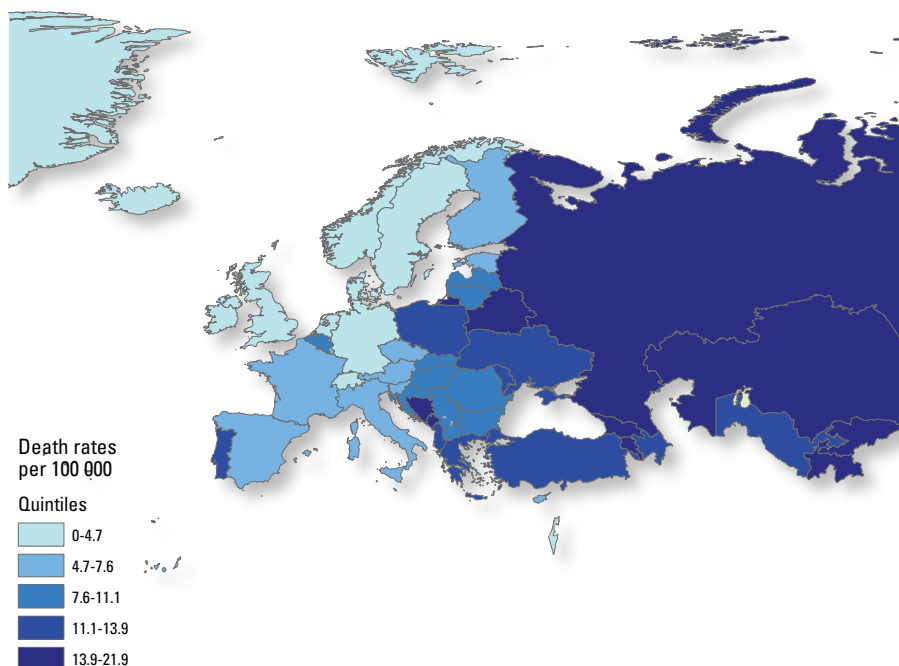
Great burden from nonfatal injuries and disability

Mortality data give only a partial picture of the true burden of road crashes. Only 21 countries provided data on deaths, hospital admissions and emergency department attendance. For every person dying, 23 people were admitted to hospital and 112 people attended an emergency room.² This represents a huge cost for health services. Three per cent (median value) of those injured in road crashes ended up with a permanent disability, affecting the lives of individuals and their families and society as a whole. Fifteen countries reported this, and a wide range from 0.14% to 25% (with a median value of 3%) reflects differences in definitions and practices.

More countries need to provide comprehensive health and disability data.

²Emergency department attendance: information reflecting the entire national case load for 12 countries and a sample for 9 countries.

Fig. 1. Mortality rates from road traffic injuries in the WHO European Region, most recent year



Societal costs are very high

Road crashes have high economic costs. Twenty-three countries provided estimates on the gross domestic product lost as a result of road traffic crashes. This ranged from 0.36% to 3.86%, with a median value of 1.3%, and may reflect differences in methods.

Coverage by emergency medical services could be improved

In 58% of countries (30 of 51, 15 high-income countries and 15 low- and middle-income countries), an ambulance transported more than 75% of all the people seriously injured to hospital. Access to good pre-hospital care can save lives, and coverage needs to be improved in 21 countries.

Fig. 2. Proportion of road users dying from road traffic injury by mode in the WHO European Region, CIS countries and the EU

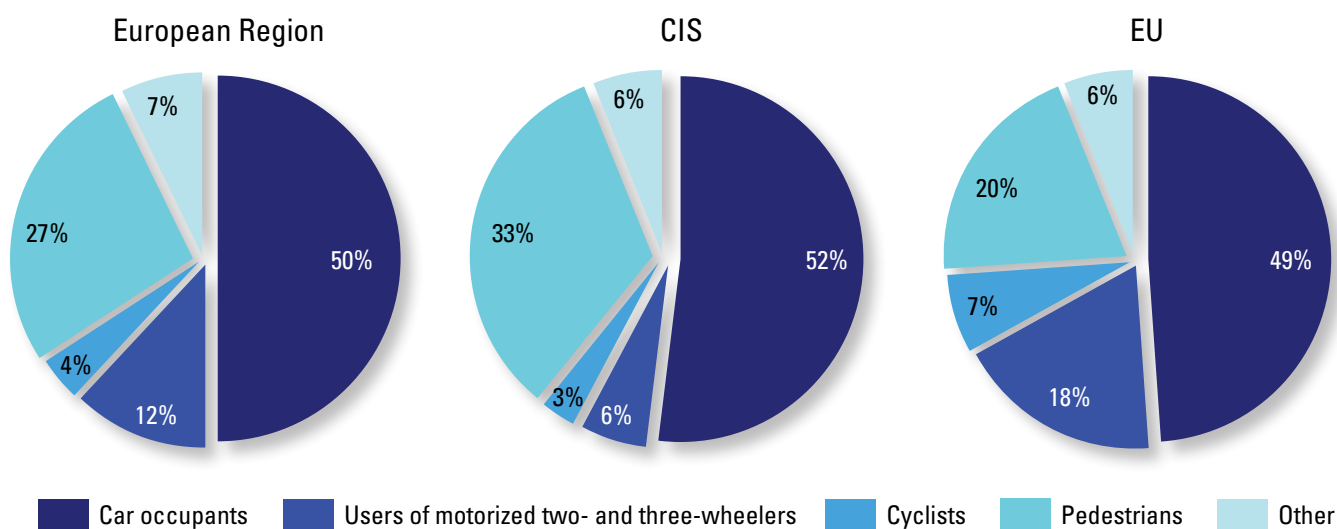




Photo: WHO/F. Mitis

Half the countries have comprehensive legislation

Twenty-five countries of 51 (49%: 21 high-income countries and 4 low- and middle-income countries) have comprehensive legislation on the five main risk factors: excessive speed, drinking and driving, helmet use, seat-belt use and child car restraints.³ The details are described below.

³ Definitions of comprehensive legislation. Speed: having a national law, urban speed limit less than or equal to 50 km/h and a local authority that can modify the law. Drink-driving: having a national law mandating blood alcohol concentration less than or equal to 0.05 g/dl. Helmet: having a national law that applies to all riders, all engines and all passengers and helmets with mandatory standards. Seat-belts: having a national law that applies to all occupants. Child car restraints: having a national law. The data on legislation are from 2011.

Speed

Seventy-eight per cent of countries (including all the high-income countries) have legislation that imposes urban speed limits less than or equal to 50 km/h. Eleven countries (10 of the 11 CIS countries that responded to the questionnaire) still have an urban speed limit exceeding 50 km/h. Seventy-eight per cent of countries allow local authorities to modify speed limits. Both conditions are met by 33 countries (25 high-income countries and 8 low- and middle-income countries) (Fig. 3). Enforcement needs to be improved: only 12 countries (25%) reported effective enforcement of this

legislation.⁴ More action is also needed to allow local authorities to modify urban speed limits (Table 1).

Drink-driving

All countries have legislation on drink-driving. Since 2008, more countries have introduced a drink-driving law that imposes a blood alcohol concentration of less than 0.05 g/dl. Only two countries do not stipulate any alcohol limit yet, and three countries allow a blood alcohol concentration exceeding 0.05 g/dl. About one third of countries (especially high-income countries) imposed a lower blood

⁴ On a scale of 0 to 10, legislation was considered effective if a score of 8 or more was assigned.

Fig. 3. Countries that have urban speed limits of 50 km/h or less and that allow local authorities to modify speed limits

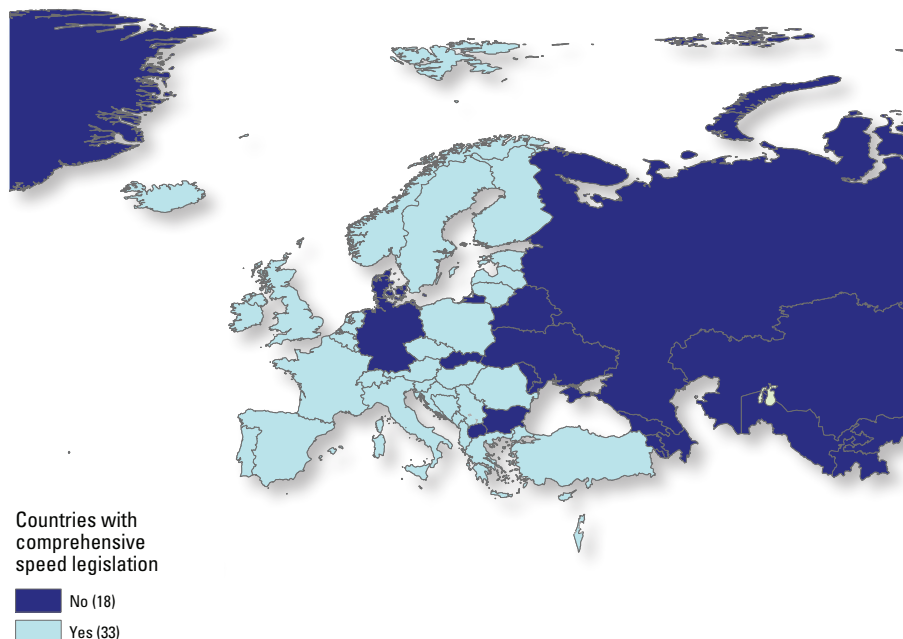
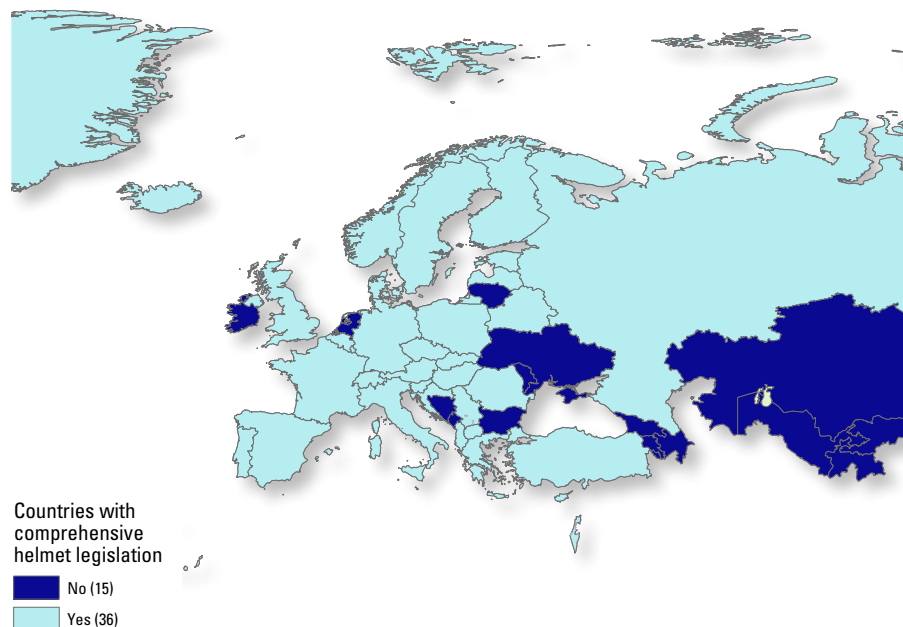


Fig. 4. Countries with a comprehensive helmet law for motorized two-wheelers



alcohol concentration for novice drivers (29%) and for professional drivers (33%) than for other drivers. Legislation is considered to be effectively enforced in 42% of the countries (Table 1).

Helmet use

All countries have legislation (national or subnational laws) on helmet use. Ninety per cent of countries have a helmet law that applies to all riders, all road types and all engine types. About two thirds of countries (especially high-income countries) have a helmet law applying to all riders and all engines with no exceptions and requiring helmets to meet standards (Fig. 4). Effective enforcement is reported by 46% of the countries (Table 1). Country-specific mortality rates (data not reported) are higher in the southern part of the Region, and in some of these countries the legislation is not considered comprehensive.

Seat-belt use

All the countries have legislation (national or subnational laws) on seat-belt use. Only three countries do not have legislation requiring the use of seat-belts for all occupants. Thirty-eight per cent of the countries report that the legislation is optimally enforced. Improvements are needed in enforcement and also in data collection, since about one third of the countries cannot provide this kind of information yet (Table 1).

Child car restraints

Ninety per cent of the countries have legislation on child car restraint use. However, there is great room for improvement, since only 12 countries (26% of the total), mainly high-income countries, report that the legislation is effectively enforced (Table 1).

Mobile phone use

In addition to the five main risk factors, data were also collected on the use of mobile phones while driving. Ninety-eight per cent of the countries have legislation that regulates the use of mobile phones while driving. Ninety-six per cent of countries prohibit the use of hand-held mobile phones, and 10% do not allow the use of either hand-held or hands-free

Table 1. Legislation for six risk factors in the WHO European Region

Legislation	High-income countries	Low- and middle-income countries	Total	%
	n = 30	n = 21	n = 51	
Speed				
Countries with an urban speed limit ≤ 50 km/h	30	10	40	78
Countries reporting speed-limit enforcement ≥ 8 (scale of 1 to 10) ^a	6	6	12	25
Countries not allowing local authorities to modify national speed limits	5	7	12	24
Countries with a national speed limit ≤ 50 km/h and that allow local authorities to reduce it	24	7	31	61
Countries with a national speed limit ≤ 50 km/h and enforcement ≥ 8 (scale of 1 to 10) ^a	5	2	7	15
Countries with speed limits around schools ≤ 50 km/h ^b	14	12	26	51
Drink-driving				
Countries with national or subnational laws	30	21	51	100
Countries with a drink-driving law that imposes blood or breath alcohol concentration ≤ 0.05 g/dl	27	18	45	88
Countries with a drink-driving law that imposes lower levels on novice drivers	10	5	15	29
Countries with a drink-driving law that imposes lower limits on professional drivers ^c	11	6	17	33
Countries with no alcohol limit stipulated for drivers	0	2	2	4
Countries with drink-driving enforcement ≥ 8 (scale of 1 to 10) ^a	11	9	20	42
Data available on road crashes attributable to alcohol	26	19	45	94
Helmet use (for motorized two-wheelers)				
Countries with national or subnational laws	30	21	51	100
Countries with a helmet law that applies to all riders, all road types and all engine types with no exception	27	19	46	90
Countries with a helmet law applying to all riders and all engines with no exceptions and requiring helmets to meet standards	27	8	35	69
Countries with the above plus enforcement ≥ 8 (scale of 1 to 10) ^a	19	3	22	46
Countries with no data on helmet-wearing rates	11	16	27	53
Seat-belt use				
Countries with national or subnational laws	30	21	51	100
Countries in which all car occupants are required to use seat-belts	29	19	48	94
Countries in which all car occupants are required to use seat-belts on all roads	28	21	49	96
Countries with comprehensive law and enforcement ≥ 8 (scale of 1 to 10) ^a	12	6	18	38
Countries with no data on rates of seat-belt use, front seats	3	11	14	27
Countries with no data on rates of seat-belt use, rear seats	3	14	17	33
Child car restraints				
Countries with legislation on child car restraints	30	16	46	90
Countries with enforcement of the law on child car restraints ≥ 8 (scale of 1 to 10) ^a	10	2	12	26
Mobile phone use while driving				
National legislation regulating the use of mobile phones while driving	29	21	50	98
Countries with routinely collected data on mobile phone use while driving	10	9	19	37
Countries with legislation prohibiting the use of hand-held mobile phones	29	19	48	96
Countries with legislation prohibiting the use of hand-held and hands-free mobile phones	1	4	5	10
Countries with legislation prohibiting text messaging	0	0	0	0

^aCalculated for countries in which a consensus on the effectiveness of law enforcement was reached.

^bThis depends on the situation in 7 high-income countries and in 1 low- or medium-income country.

^cFor France, only for bus and coach drivers and not truck drivers.



Photo: WHO/M. Peden

mobile phones. Data collection needs to be improved since only 37% of the countries routinely collect data on the use of mobile phones while driving (Table 1).

Safety standards for vehicles

Legislation and regulations that require safety features for new cars manufactured or assembled in the country are present in almost all countries for the installation of front and rear seat-belts (96%) but much less so for anti-locking brake systems (37%), electronic stability control (17%) and airbags (32%). Twenty-six countries do not have domestic car manufacturers. The regulations for new cars imported into countries are lax, and the figures are even lower (respectively: 84%, 30%, 14% and 25%). The problem is even worse for imported second-hand cars, with respective figures of 78%, 6%, 4% and 6%. Governments apply the European New Car Assessment Programme in 9 high-income countries, and 32 countries (22 high-income countries and 10 low- and middle-income countries) comply with the regulations of the World Forum for Harmonization of Vehicle Standards of the United Nations.

Road infrastructure

Regarding road networks, new road infrastructure projects require safety review before construction in 44 countries, and safety inspections of existing road infrastructure are conducted regularly in 30 countries and on some parts of the road network in 14 countries. Only 27 countries (15 high-income countries and 12 low- and middle-income countries) have assessments carried out by agencies independent from the bodies involved in constructing the road. Only 18 countries meet these three criteria, and governments need to do more in this area.

Physically active transport policies

Many countries in the Region (25 high-income countries and 8 low- and middle-income countries) report national policies that encourage walking and/or cycling as an alternative to car travel at the national or subnational level. Forty-one countries (27 high-income countries and 14 low- and middle-income countries) have national policies that support investment in public

transport as an alternative to car travel. In addition to controlling speed, vulnerable road users are also protected by policies that require physical separation from other road users, by building separated cycle lanes; this was reported by 34 countries (27 high-income countries and 7 low- and middle-income countries) at the national or subnational level.

Conclusions and actions

This fact sheet shows that road traffic injuries remain an important public health concern in the WHO European Region, with young people most at risk. Although some countries in the Region are making good progress, others need to accelerate the pace of safety implementation. Political will is needed to implement the strong evidence base of what works for prevention through multisectoral action.

- About 92 000 people died on roads in the Region in 2010. However, progress has been made in many countries to reduce the number of people dying in road traffic, which has declined by about 25% in the past three years.

- › Almost half the countries in the Region now have comprehensive legislation on all five risk factors (speed, drink-driving, seat-belts, child restraints and helmets); the other half need to work towards increasing the adoption of comprehensive legislation relating to the key risk factors for road traffic injuries. This applies especially to low- and middle-income countries, which should conduct legislative reviews to tighten up laws so as to maximize benefits for their citizens.
- › Legislation is still suboptimally enforced in more than half the countries despite being essential to successfully implementing policy. This requires adequate resources supported by strong social marketing campaigns to win public understanding and support.
- › More attention needs to be paid to the plight of vulnerable road users, which constitute 43% of road deaths in the Region, with a particular focus on motorcyclists and pedestrians. In the EU, continued attention needs to be focused on pedestrians. The forthcoming Second United Nations Global Road Safety Week is an opportunity to focus attention on pedestrians.
- › The Region has many examples of how non-motorized forms of transport can be safely integrated into more sustainable and safer transport systems. Others should invest in such transport policies that address environmental pressures and protect vulnerable road users.
- › Countries, vehicle manufacturers and distributors need to work together to ensure that vehicles meet international crash testing standards.
- › Governments should make increased efforts to ensure that road infrastructure is safer for all road users and to promote physically active forms of transport.
- › The quality of data relating to people who are nonfatally injured and disabled in road crashes must be improved. Harmonizing definitions and linking multiple data sources will improve official data estimates.
- › National road safety strategies with targets are needed, and a lead agency should coordinate implementation to reach the goals of the Decade of Action for Road Safety 2011–2020.

References

1. *Global status report on road safety: time for action*. Geneva, World Health Organization, 2009 (http://whqlibdoc.who.int/publications/2009/9789241563840_eng.pdf, accessed 6 February 2013).
2. *European status report on road safety: towards safer roads and healthier transport*. Copenhagen, WHO Regional Office for Europe, 2009 (http://www.euro.who.int/__data/assets/pdf_file/0015/43314/E92789.pdf, accessed 6 February 2013).
3. *Global status report on road safety 2013: supporting a decade of action*. Geneva, World Health Organization, 2013.
4. *Health 2020: a European policy framework supporting action across government and society for health and well-being*. Copenhagen, WHO Regional Office for Europe, 2009 (http://www.euro.who.int/__data/assets/pdf_file/0009/169803/RC62wd09-Eng.pdf, accessed 6 February 2013).



Photo: WHO/V. Shkaruba

Acknowledgements

Tamitza Toroyan, Kacem Iaych and Margie Peden from WHO headquarters provided support for the coordination of the project, data analysis and comments on drafts.

The following external peer reviewers provided useful comments: Fred Wegman (SWOV, Institute for Road Safety Research, the Netherlands), David Ward (FIA Foundation) and Ian Roberts (London School of Hygiene and Tropical Medicine, United Kingdom).

Country-level data were obtained thanks to the support of the heads and staff of WHO country offices and thanks to the work of national data coordinators, questionnaire respondents and government officials who cleared the information.

David Breuer edited the text and Lars Møller produced the cover, the design and the layout.

Generous financial support from Bloomberg Philanthropies made this study possible.

*Francesco Mitis and Dinesh Sethi,
WHO Regional Office for Europe*



Photo: Istockphoto

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

- Albania
- Andorra
- Armenia
- Austria
- Azerbaijan
- Belarus
- Belgium
- Bosnia and Herzegovina
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Georgia
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Kazakhstan
- Kyrgyzstan
- Latvia
- Lithuania
- Luxembourg
- Malta
- Monaco
- Montenegro
- Netherlands
- Norway
- Poland
- Portugal
- Republic of Moldova
- Romania
- Russian Federation
- San Marino
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Tajikistan
- The former Yugoslav
 Republic of Macedonia
- Turkey
- Turkmenistan
- Ukraine
- United Kingdom
- Uzbekistan



**World Health Organization
Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø
Denmark
Tel.: +45 45 33 70 00
Fax: +45 45 33 70 01
Email: contact@euro.who.int
Website: www.euro.who.int**

Original: English