EUROPEAN FACTS AND GLOBAL STATUS REPORT ON ROAD SAFETY 2013
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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
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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 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). 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.

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.

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 (49% of deaths) in the CIS 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 (49% of deaths) in the CIS decreased. The EU has proportionately fewer pedestrians (20%) dying and more cyclists (7%) and users of motorized two- and three-wheelers (18%).

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.

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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. 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.

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.

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

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

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

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. 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

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

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

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

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

$^c$For France, only for bus and coach drivers and not truck drivers.
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. 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


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