

# GLOBAL STATUS REPORT ON ROAD SAFETY 2015





# Road safety targets and the Sustainable Development Goals

In September 2015, heads of state attending the United Nations General Assembly adopted the historic Sustainable Development Goals (SDGs). One of the new SDG targets (3.6) is to halve the global number of deaths and injuries from road traffic crashes by 2020.

Inclusion of such an ambitious road traffic fatality target is a significant advance for road safety. It is a reflection of the growing recognition of the enormous toll exacted by road traffic injuries – road traffic crashes are a leading cause of death globally, and the main cause of death among those aged 15–29 years (see **Figure 1**). It is also recognition of the heavy burden that road traffic injuries place on national economies and households, and thus their relevance to the broader development and environment agendas addressed by the SDGs.

Adopting a target on road traffic injuries is also an acknowledgement of the strong

scientific evidence base that exists on what works to reduce road traffic injuries. There is considerable evidence about interventions that are effective at making roads safer, and countries that have successfully implemented these interventions have seen corresponding reductions in road traffic deaths. Rolling out these interventions globally offers huge potential to mitigate future damage and save lives.

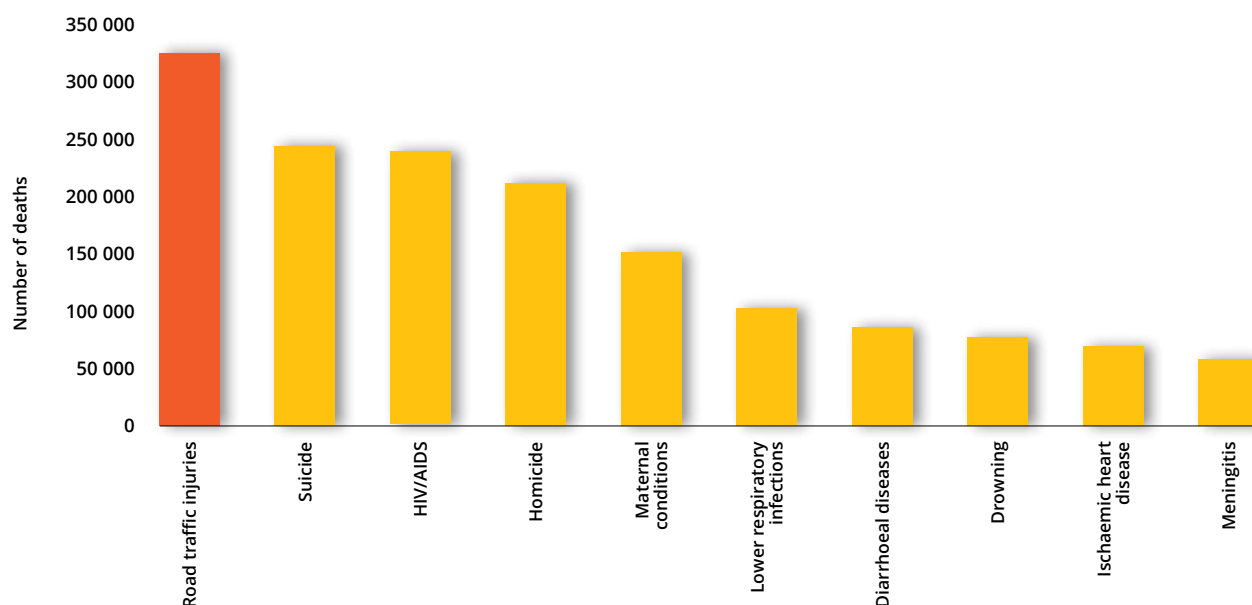
The Decade of Action for Road Safety (2011–2020) calls on countries to implement the measures identified internationally to make their roads safer. The UN General Assembly invited WHO to monitor progress through its *Global status report on road safety* series. This report is the third in the series, and provides a snapshot of the road safety situation globally, highlighting the gaps and thereby encouraging the need for countries and the international community to galvanize greater and faster action.

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**The Sustainable Development Goals include a target of 50% reduction in road traffic deaths and injuries by 2020.**

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**FIGURE 1**  
Top ten causes of death among people aged 15–29 years, 2012



Source: World Health Organization, Global Health Estimates, 2014

# The current state of global road safety

**The plateau in road traffic deaths, set against a 4% increase in global population and 16% increase in motorization, suggests that road safety efforts over the past 3 years have saved lives.**

## The number of road traffic deaths has plateaued since 2007

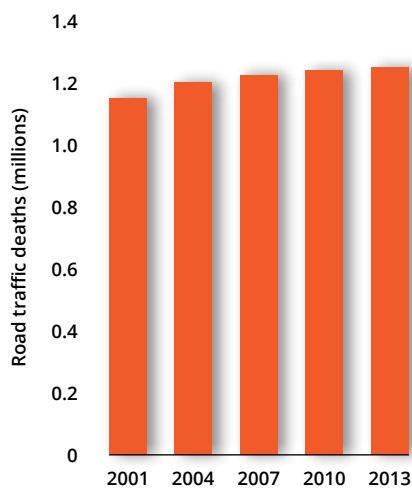
The number of road traffic deaths – 1.25 million in 2013 – has plateaued since 2007 (see Figure 2) despite the global increase in population and motorization and a predicted rise in deaths. This suggests that interventions implemented over the past few years to improve global road safety have saved lives.

This report shows that 68 countries have seen a rise in the number of road traffic

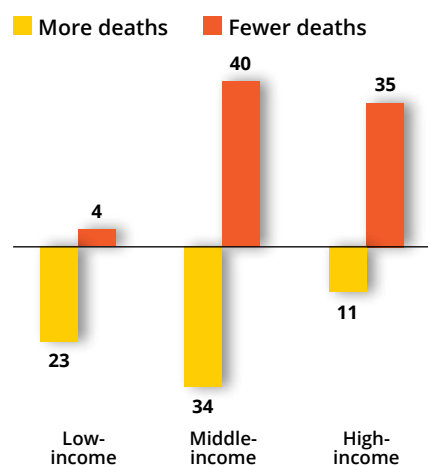
deaths since 2010, of which 84% are low- or middle-income countries. Seventy-nine countries have seen a decrease in the absolute number of deaths, of which 56% are low- and middle-income (see Figure 3).

However, low-income countries have fatality rates more than double those in high-income countries and there are a disproportionate number of deaths relative to these countries' level of motorization: 90% of road traffic deaths occur in low- and middle-income countries, yet these countries have just 54% of the world's vehicles (see Figure 4).

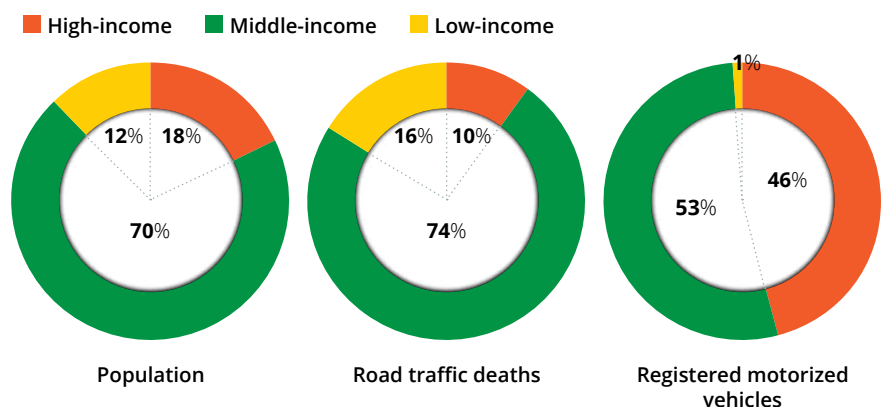
**FIGURE 2**  
Number of road traffic deaths, worldwide



**FIGURE 3**  
Countries showing changes in the number of road traffic deaths, 2010–2013, by income status<sup>a</sup>



**FIGURE 4**  
Population, road traffic deaths and registered motorized vehicles, by country income

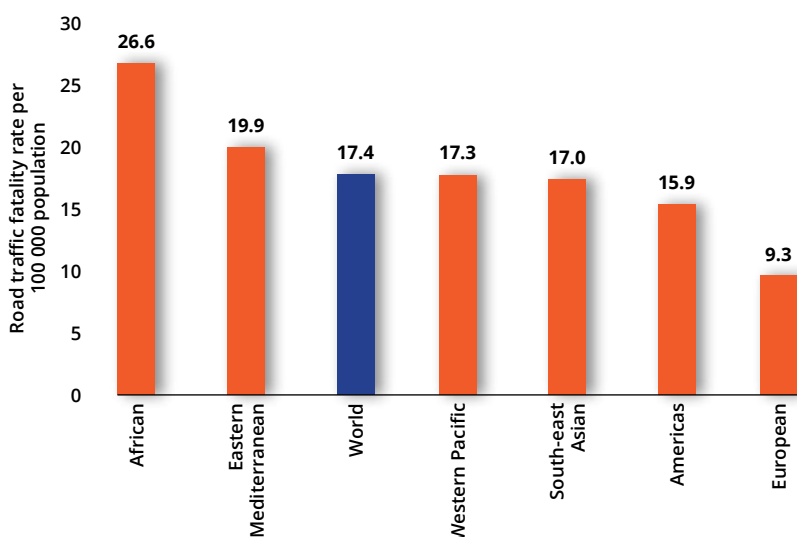


## The African region has the highest road traffic fatality rate

The African Region continues to have the highest road traffic death rates (see

Figure 5). The lowest rates are in the European Region – notably among the region’s high-income countries, many of which have been very successful at achieving and sustaining reductions in death rates despite rising motorization.

**FIGURE 5**  
Road traffic fatality rates per 100 000 (2013), by WHO region



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**Road traffic death rates in low- and middle-income countries are more than double those in high-income countries.**

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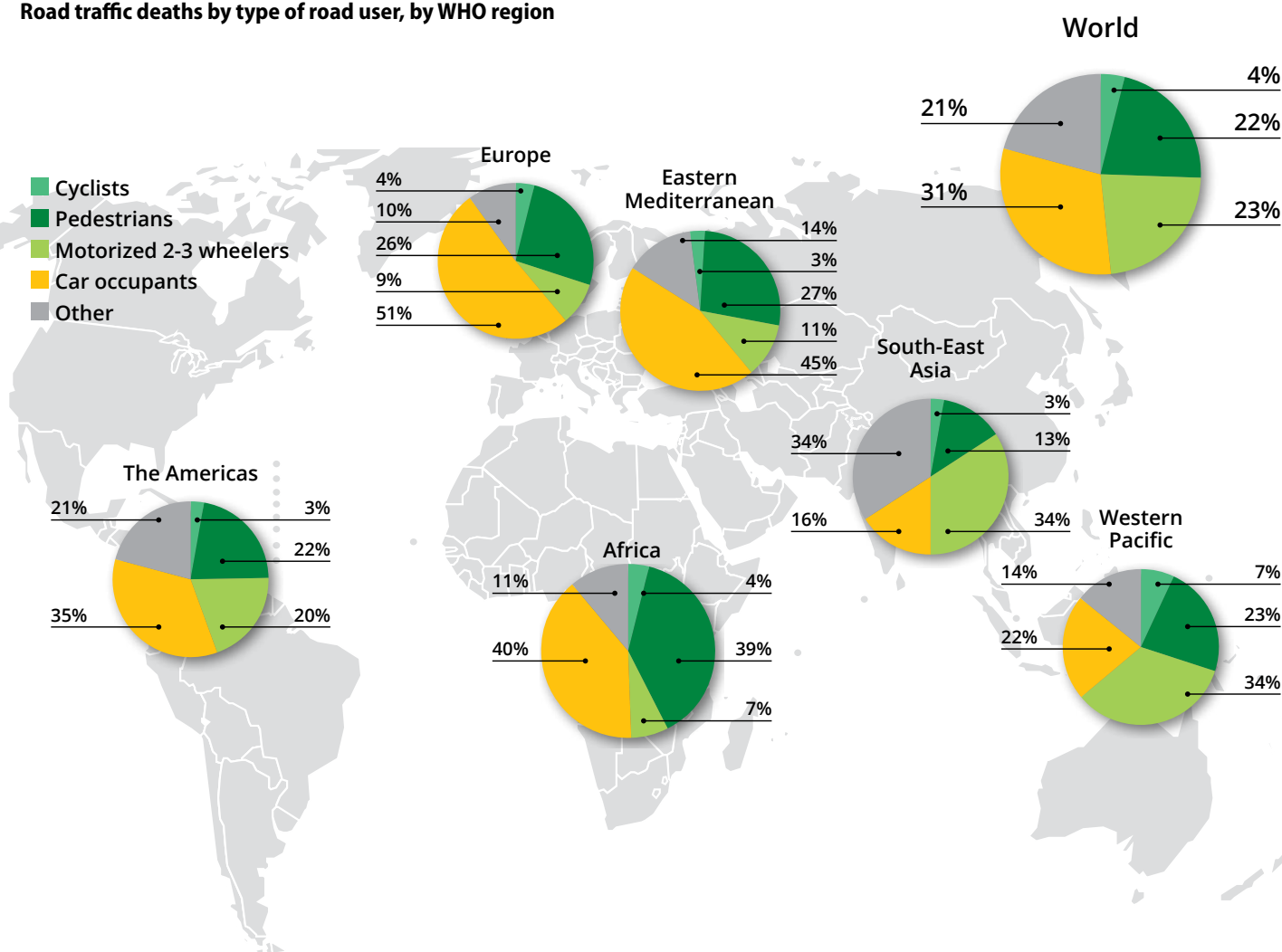


## Almost half of all road traffic deaths are among pedestrians, cyclists and motorcyclists

Almost half of all deaths on the world's roads are among those with the least protection – motorcyclists (23%), pedestrians (22%) and cyclists (4%). However, the likelihood of dying on the road as a

motorcyclist, cyclist or pedestrian varies by region: the African Region has the highest proportion of pedestrian and cyclist deaths at 43% of all road traffic deaths, while these rates are relatively low in the South-East Asia Region (see **Figure 6**). This partly reflects the level of safety measures in place to protect different road users and the predominant forms of mobility in different regions.

**FIGURE 6**  
Road traffic deaths by type of road user, by WHO region



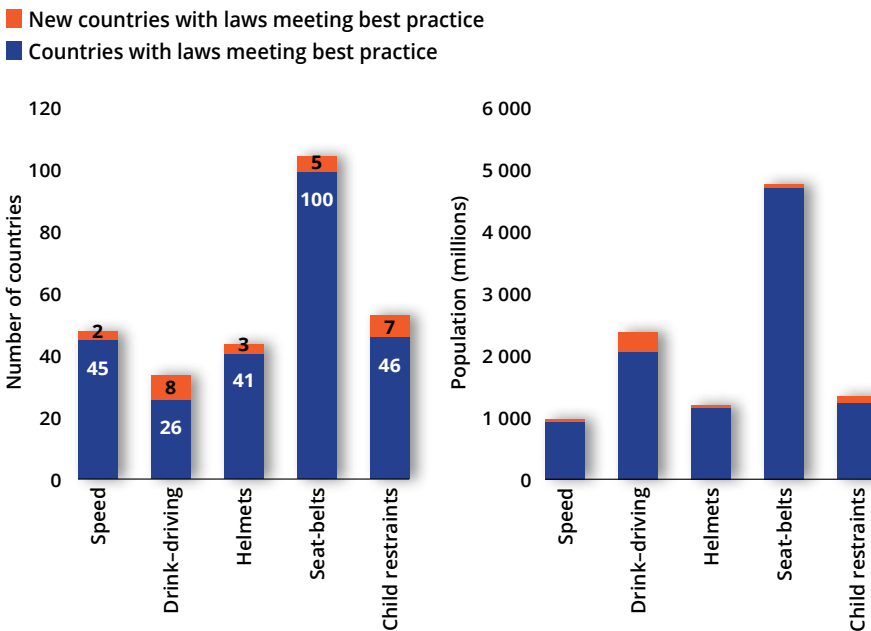
# Many countries need to strengthen road safety legislation

Road safety laws improve road user behaviour and reduce road traffic crashes, injuries and deaths – especially laws relating to the five key risk factors for road safety – speed, drink-driving, the use of motorcycle helmets, seat-belts and child restraints. Progress has been made in 17 countries

(covering 409 million people) to amend laws relating to one or more of these risk factors over the past 3 years and bring them in line with best practice. **Figure 7** shows the number of countries that have made changes to their laws, by risk factor, and the population represented by

these changes. The most positive changes to road user behaviour occur when road safety legislation is supported by strong and sustained enforcement, and public awareness.

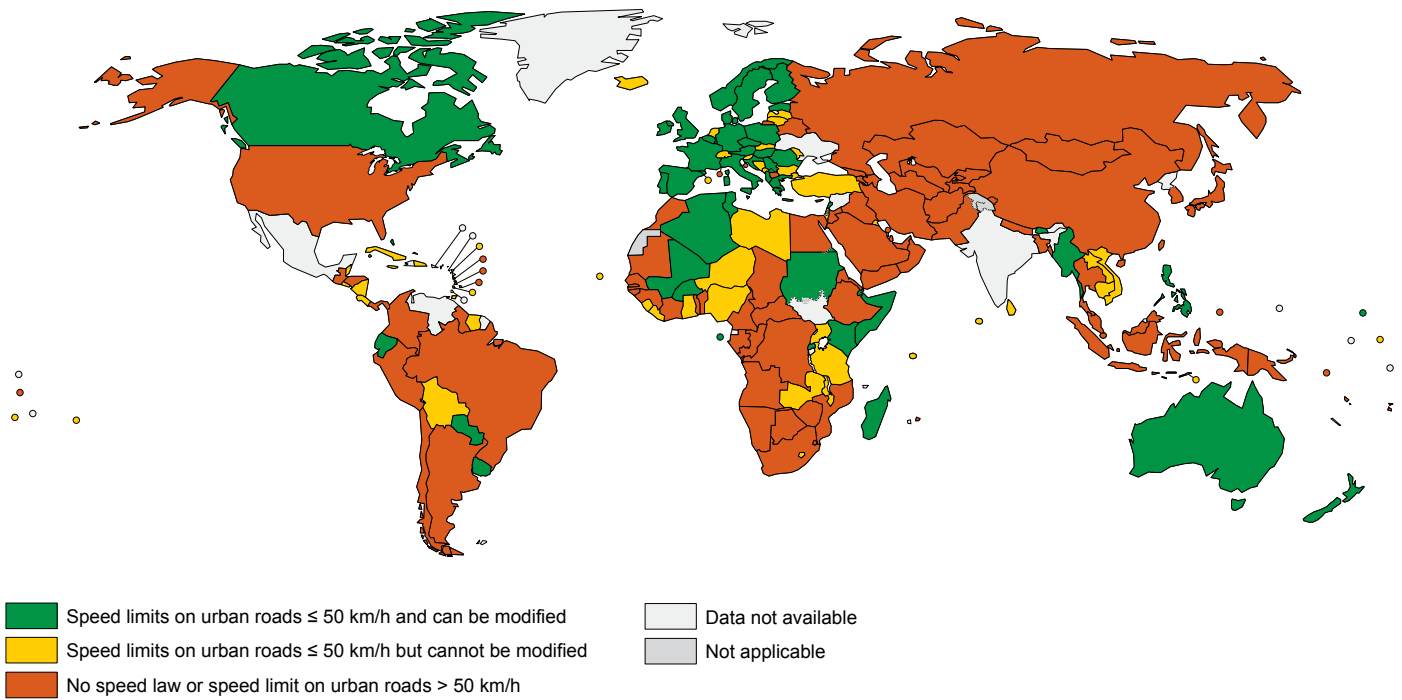
**FIGURE 7**  
Changes in legislation on behavioural risk factors 2011–2014  
(number of countries and population represented)



**In the last 3 years 17 countries, representing 409 million people, have amended their laws on one or more key risk factors for road traffic injuries to bring them into line with best practice.**



**FIGURE 8**  
Urban speed laws, by country/area



**An adult pedestrian has less than a 20% chance of dying if struck by a car at less than 50 km/h but almost a 60% risk of dying if hit at 80 km/h.**

### Reducing speed

As average traffic speeds rise, so too does the likelihood of a crash and the severity of the consequences – especially for pedestrians, cyclists and motorcyclists. Countries successfully reducing road traffic deaths have done so by prioritizing safety when managing speed.

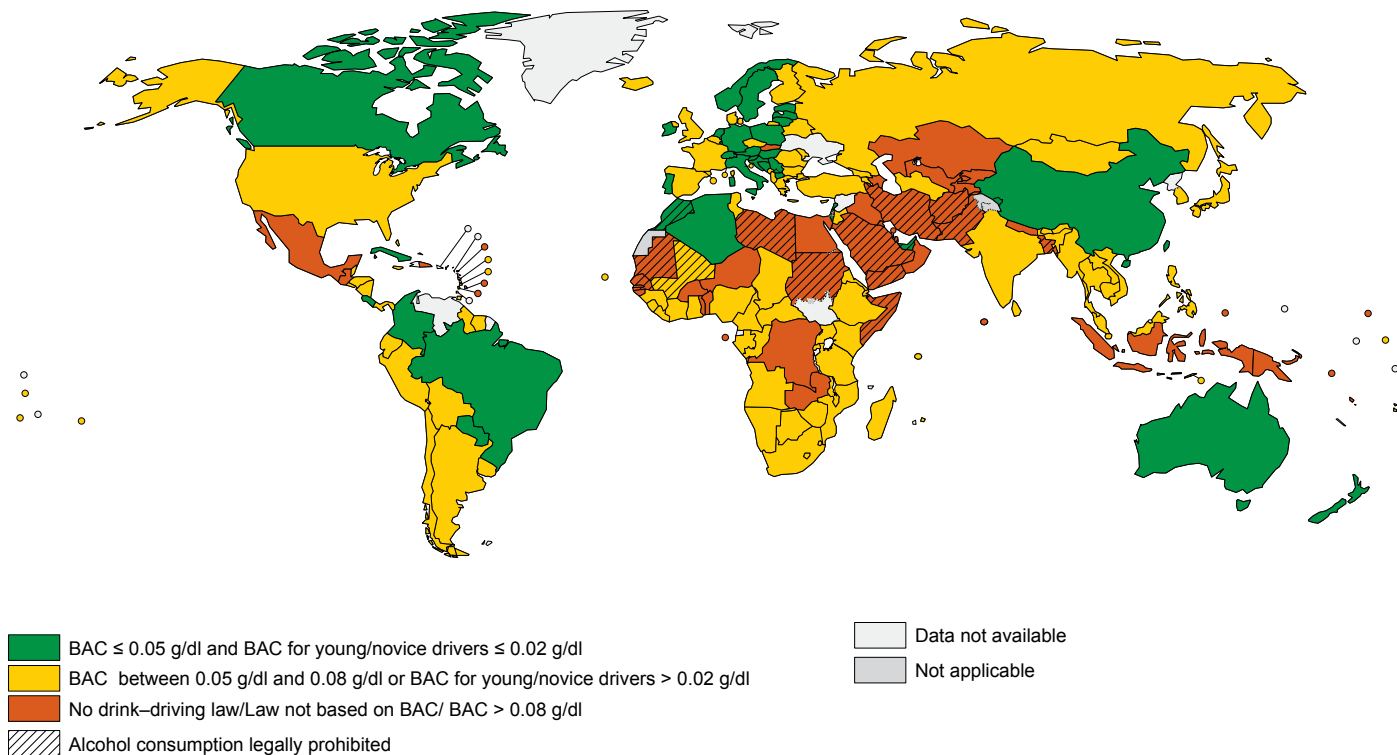
Setting national speed limits is an important step in reducing speed. Maximum urban speed limits should be lower than or equal to 50 km/h, in line with best practice. In addition, local authorities should have the legislative power to reduce speed limits, allowing them to take into account local circumstances such as schools or high concentrations of vulnerable road users.

However, only 47 countries (representing 13% of the world’s population), meet both legislative criteria for best practice on urban speed management – a national urban maximum speed limit of 50 km/h, and local authority power to reduce this limit to ensure safe speeds locally (see **Figure 8**).

Enforcement is essential to make speed limits effective, yet just 27 countries rate their enforcement of speed laws as “good” (8 or above on a scale of 0 to 10). This suggests that without sustained and visible speed limit legislation enforcement, the potential of speed legislation to save lives globally remains vastly unattained.



**FIGURE 9**  
**Drink–drive laws, by country/area**



## Reducing drink–driving

Drink–driving increases the likelihood of a road traffic crash and that death or serious injury will result, so setting and enforcing legislation on blood alcohol concentration (BAC) limits of 0.05 g/dl can significantly reduce alcohol-related crashes. Young and novice drivers are at a much-increased risk of road traffic crashes when under the influence of alcohol compared to older, more experienced drivers. Laws that establish lower BACs (≤0.02 g/dl) for young and novice drivers can reduce the number of crashes involving young people.

While eight countries have improved their drink–driving laws over the past three years, only 34 countries globally have national drink–driving laws with a BAC of less than or equal to 0.05 g/dl as well as lower limits of less than or equal to 0.02 g/dl for young and novice drivers (Figure 9). Twenty-one of these countries are in the European Region, suggesting the need to extend good practice globally. Meanwhile, strong enforcement of drink–driving laws improves both their effectiveness, but only 46 countries rate their enforcement of drink–driving laws as “good”.

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**Only 34 countries, representing 2.1 billion people, have drink–driving laws in line with best practice.**

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## Improving motorcycle helmet use and quality

Rapid growth in the use of motorized two-wheeled vehicles in many countries has been accompanied by increases in injuries and fatalities among users, but wearing a motorcycle helmet can reduce the risk of death by almost 40% and the risk of severe injury by approximately 70%.

Helmet laws should apply to all riders (including children) and specify a helmet-quality standard, but only 44 countries (representing 1.2 billion people) have laws that: apply to all drivers, passengers, roads and engine types; require the helmet to be fastened; refer to a particular helmet standard. Those with laws incorporating these characteristics are disproportionately high-income countries in the European Region (see **Figure 10**). This is particularly worrying as the South-East Asia Region and the Western Pacific Region are known to have a high proportion of motorcycle deaths, while in the Region of the Americas the proportion of road traffic deaths among motorcyclists is on the rise – increasing from 15% to 20% between 2010 and 2013.

Enforcement is critical to the effectiveness of helmet laws, yet only 68 countries rate their helmet law enforcement as “good” (8 or above on a scale of 0 to 10), revealing that urgent attention needs to be given to ensuring helmets are up to standard and properly worn.

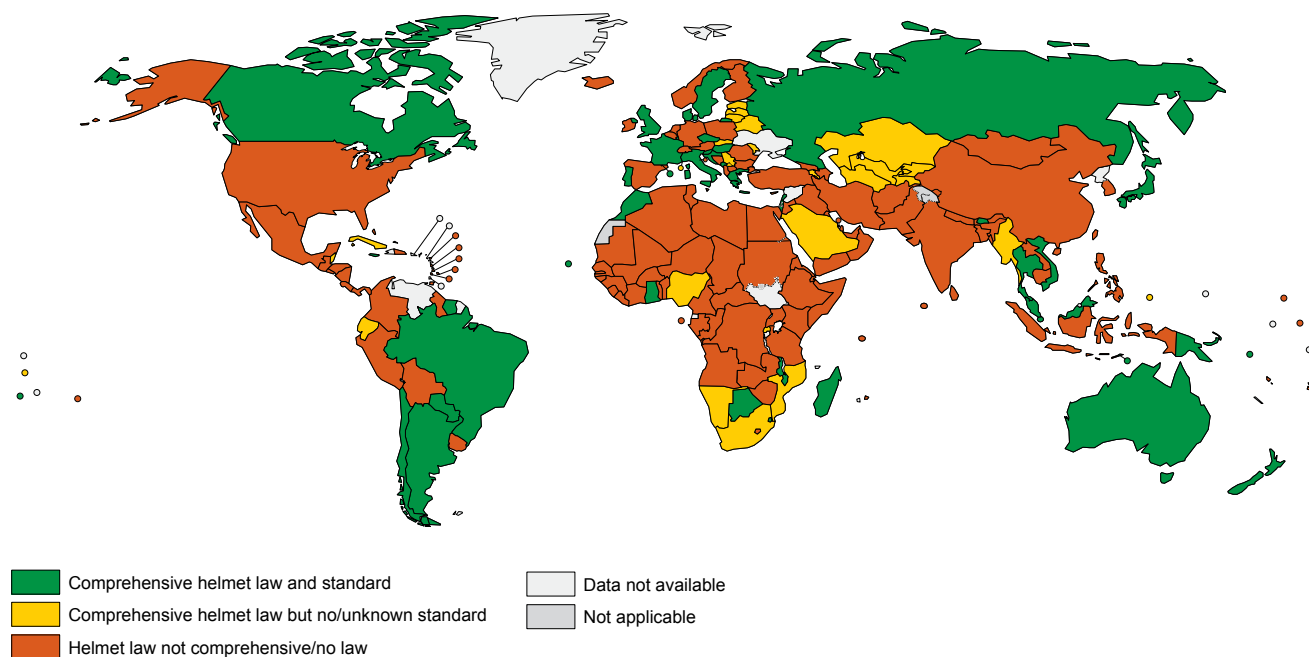
## Increasing seat-belt use

Wearing a seat-belt reduces the risk of fatality among drivers and front-seat passengers by 45–50%, and the risk of minor and serious injuries by 20–45% respectively. Among rear-seat passengers, seat-belts reduce fatal and serious injuries by 25% and minor injuries by up to 75%.

Over the past three years, progress has been made in countries modifying their seat-belt laws: five countries, representing 36 million people, have brought their seat-belt laws in line with best practice. Comprehensive seat-belt laws covering all occupants are now in place in 105 countries, covering 67% of the world’s population (see **Figure 11**). Despite these improvements in legislation, much more is needed to improve enforcement of seat-belt laws as only 52 countries rate their seat-belt enforcement as “good”.

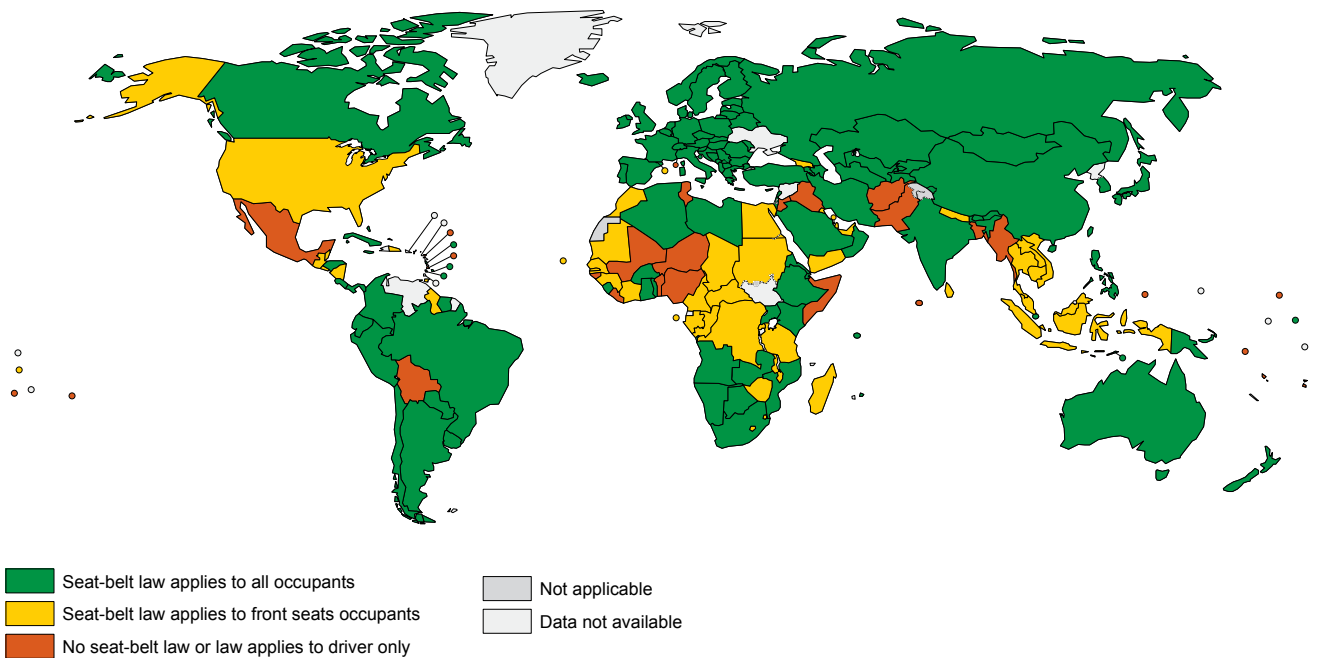
**Only 44 countries, representing 1.2 billion people, have helmet laws that meet best practice and apply a helmet standard.**

**FIGURE 10**  
Motorcycle helmet laws and helmet standards, by country/area



**FIGURE 11**

**Seat-belt laws, by country/area**



### Improving child restraint use

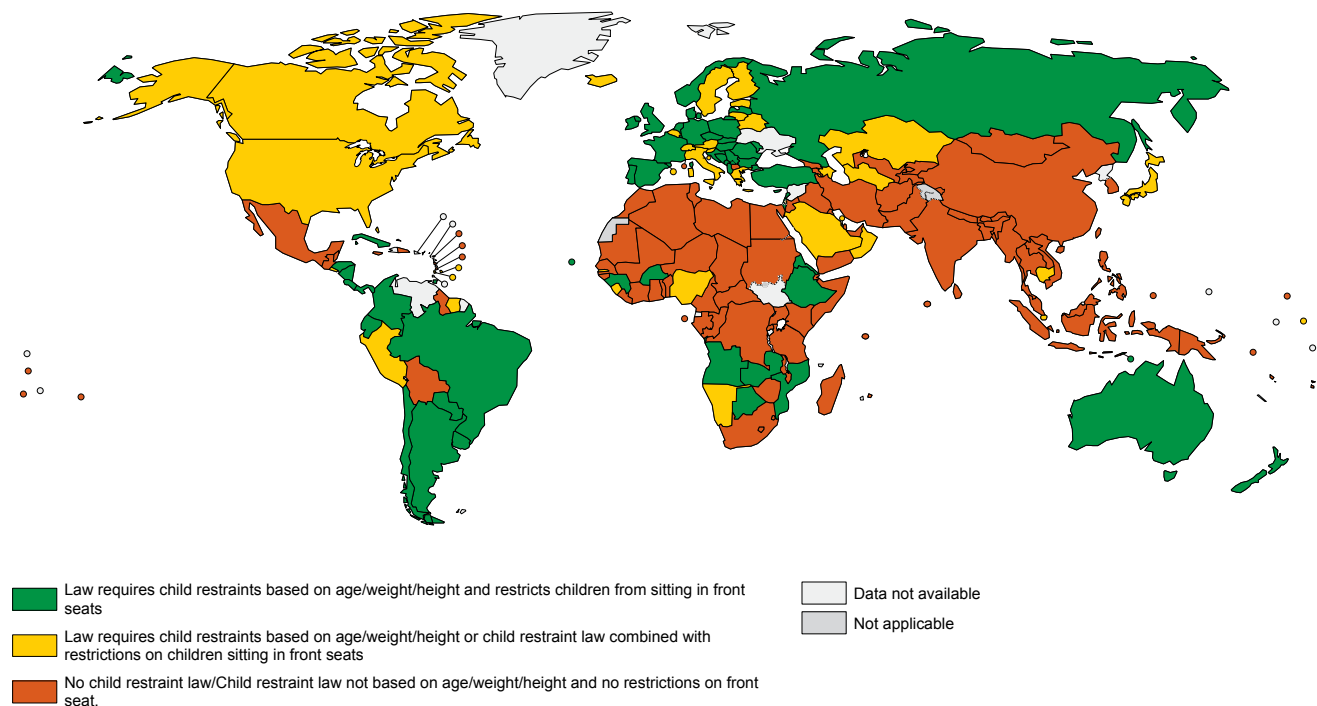
Child restraints reduce the likelihood of fatalities as a result of a crash by approximately 90% among infants and between 54% and 80% among young children. Additionally, children are safer seated in the rear of a vehicle than in the front.

Only 53 countries (representing just 17% of the world’s population) have a child restraint law based on age, height or weight, and apply an age or height restriction on children sitting in the front seat (see **Figure 12**). Even though legislation has an important role in increasing child restraint use, achieving compliance with child restraint laws is challenging, even in high-income countries. The cost

of child restraints can also be prohibitive to many families and may be a challenge to the effectiveness of legislation, while enforcement of child restraint laws is frequently weak: only 22 countries rate their enforcement of child restraint laws as “good” (8 or above on a scale of 0 to 10). Increasing compliance requires efforts that address issues of access to and cost of child restraints.

**FIGURE 12**

**Child restraint laws, by country/area**



# Policymakers must make vehicles and roads safer

## Most countries fail to apply minimum UN safety standards to new cars

Over the past three years there has been a 16% increase in the global number of registered motorized vehicles – in 2014 there were a record 67 million new passenger cars on the world's roads, with nearly 50% of these produced in middle-income countries.

Safe vehicles play a critical role in averting crashes and reducing the likelihood of serious injury. Over the past few decades a combination of regulatory requirements and consumer demand has led to increasingly safe cars in many high-income countries. However, rapid motorization in low- and middle-income countries – where the risk of a road traffic crash is highest – and the growing manufacture of vehicles in these emerging economies means there is an urgent need for minimum vehicle

standards to be implemented by every country.

At the international level there are efforts to harmonize this system of regulations. The UN World Forum for Harmonization of Vehicle Regulations is the primary global body responsible for the development of passenger car safety standards. Its regulations provide a legal framework covering a range of vehicle standards which, if applied to countries' manufacturing and production standards, would potentially save many lives. This report looked at seven key vehicle safety recommendations: to date, only 40 countries meet all seven vehicle standard regulations and these are overwhelmingly high-income countries.

Given the increase in vehicle production in emerging economies and their high burden of road traffic deaths, it is important that governments in these countries

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**Vehicles sold in 80% of all countries worldwide fail to meet basic safety standards.**

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take steps to ensure basic standards for vehicles manufactured within their borders, either for domestic sale or export. Governments have a responsibility to take the steps needed to ensure their citizens have access to safe vehicles.

## High-performing countries exploring sustainable transport

Road infrastructure has traditionally maximized mobility and economic efficiency at the expense of safety (particularly that of non-motorized road users). Indeed, as motorization increases worldwide, walking and cycling have become less common and more dangerous. The traffic mix in many countries means pedestrians and cyclists share the road with high-speed vehicles, forcing them to negotiate dangerous situations and fast moving traffic.



Changes are needed to optimize the movement of people and freight with road safety in mind, taking into account the mix and safety of all road users. In many industrialized countries these changes are already taking place, generally at a local level where communities have been involved promoting safe public transport and non-motorized means of transport. Measures to promote walking and cycling are also in line with global moves to fight obesity and reduce noncommunicable diseases (such as heart disease and diabetes) and improve the quality of urban life.

This report found that 92 countries have policies to promote walking and cycling (of which 49% are high-income countries), but if these strategies are not accompanied by other measures – such as effective speed management and pedestrian and cycling facilities – they could actually lead to increases in road traffic injuries. A key strategy for achieving a safe traffic system for pedestrians and cyclists is to separate these different kinds of road use. Yet currently only half (91) of all countries have policies to separate vulnerable road users from high-speed traffic.

Moving towards more sustainable modes of transport has positive effects if associated road safety impacts have been well managed. These include increased physical activity, reduced emissions and noise levels, reduced congestion and more pleasant cities.

### Safe road systems consider the needs of all road users

Ensuring safety measures are implemented when road infrastructure projects are designed can result in important safety gains for all road users. This is particularly true where road design and maintenance are underpinned by a Safe System approach, which makes allowances for human error. The use of infrastructure interventions to help manage speed and reduce the likelihood of a crash (for example road widening or raised pedestrian crossings), and interventions to mitigate the severity of the crash (for example using roadside barriers and roundabouts), all reduce death and injury on the road.

Currently, 147 countries require some type of road safety audit on new roads, although these vary greatly in what they cover, and thus in quality. Existing road infrastructure should also be regularly assessed for safety, with a focus on roads with the highest crash risk: 138 countries currently assess parts of existing road safety networks.

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**91 countries have policies to separate vulnerable road users from high-speed traffic.**

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# Conclusions and recommendations

This report shows that 1.25 million people are killed each year on the world's roads, and that this figure has plateaued since 2007. In the face of rapidly increasing motorization, this stabilization of an otherwise projected increase in deaths is an indication of the progress that has been made. However, these efforts to reduce road traffic deaths are clearly insufficient if the international road safety targets set by the Sustainable Development Goals are to be met.

Achieving effective and long-lasting improvements in road safety has been attained in a number of countries that have adopted a broad approach addressing many dimensions of road safety. The challenge today is for the downward trends in road traffic deaths seen in these countries to be replicated in other countries, but in a shorter timeframe. Political will is crucial to driving such changes, but action is particularly necessary on a number of specific issues:

- Good laws relating to key risk factors can be effective at reducing road traffic injuries and deaths. Some progress has been made: over the past 3 years, 17 countries (representing 5.7% of the world's population) have amended their laws to bring them into line with best practice on key risk factors. Nonetheless, many countries

lag far behind in terms of ensuring their laws meet international standards.

- Lack of enforcement frequently undermines the potential of road safety laws to reduce injuries and deaths. More effort needs to be placed in optimizing enforcement efforts.
- Insufficient attention has been paid to the needs of pedestrians, cyclists and motorcyclists, who together make up 49% of all global road traffic deaths. Making the world's roads safer will not be possible unless the needs of these road users are considered in all approaches to road safety. Making walking and cycling safer will also have other positive co-benefits if non-motorized forms of transport become more popular, including more physical exercise, reduced emissions, and the health benefits associated with such changes.
- Making cars safer is a critical component of saving lives on the roads. Eighty percent of countries around the world – notably low- and middle-income countries – still fail to meet even the most basic international standards on vehicle safety. The lack of such standards in middle-income countries (which are increasingly becoming major car manufacturers) also risks jeopardising global efforts to make roads safer. Governments must urgently sign up to the minimum international vehicle

standards for manufacturers and assemblers, and limit the import and sale of sub-standard vehicles in their countries.

Countries need to address a number of other areas in order to improve road safety. These include improving the quality of their data on road traffic injuries and harmonising data in line with international standards, having a lead agency with the authority and resources to develop a national road safety strategy whose implementation they oversee, as well as improving the quality of care that is available to those who suffer a road traffic injury.

These data represent the road safety situation 3 years into the Decade of Action for Road Safety. Despite a strong evidence base around what works, it shows insufficient attention has been paid to road safety and that a heavy price is being paid in terms of lives lost, long-term injury and pressure on health-care services. The international attention promised to the issue of road safety by the new Sustainable Development Goal target to halve deaths and injuries from road traffic crashes by 2020 presents a golden opportunity for much needed action, and one that must be seized by all countries. Through this, the pace of progress can be accelerated and an actual decline in global road traffic deaths realized.



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