

Road type

Most traffic fatalities occur on rural roads.

Inappropriate and relatively high speeds, the lack of physical separation as well as poor roadsides increase the occurrence and severity of road crashes. In 2016, road fatalities on rural roads represented between almost 40% (in Portugal) and 76% (in New Zealand) of all road deaths. However, it is worth mentioning that in most countries the majority of non-fatal severe crashes occur in urban areas.

Fatal crashes in urban areas are increasing.

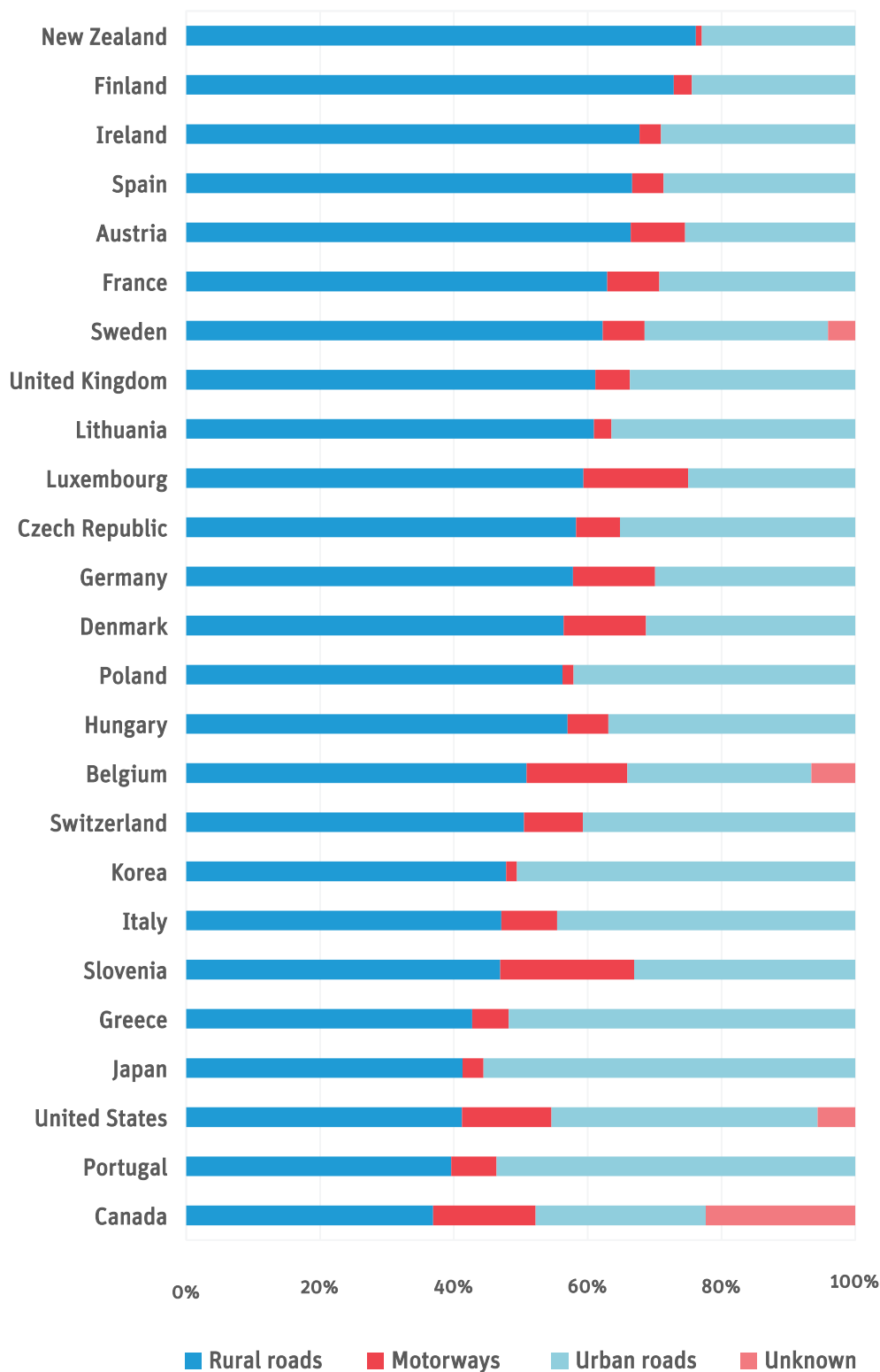
Since 2000, the share of fatalities that occur on city roads has increased in more than half of the IRTAD countries. This trend is particularly prevalent in Greece, Korea and Portugal. In Korea, road deaths in urban areas represented 32% of all fatalities in 2000, rising to 42% in 2010 and 51% in 2016. In Greece, the percentage of urban traffic fatalities rose from 34% in 2010 to 52% in 2016, and in Portugal from 39% to 54%.

Motorways are the safest roads.

In countries for which kilometrage data and fatality data are available by type of road, the risk of dying on motorways is between two to six times smaller than on the whole network.

Traffic deaths by road type

2016



Data from Argentina, Australia, Chile, Iceland, Israel, Netherlands and Norway are not available.

IRTAD

Recommendations

Alcohol-related road crashes

Review how data on alcohol-related road crashes is collected

In order to collect more reliable and comparable data on alcohol-related serious road injuries and fatalities, countries should begin by assessing their current status on the recording of data on alcohol-related road fatalities and serious injuries.

Aim for a systematic alcohol testing of every road user actively involved in a serious crash

Ideally, 100% of active road users that are involved in a road crash that resulted in death or serious injury should be tested for alcohol. If a systematic alcohol testing at this level is not possible, countries should apply additional methods for adjusting the official numbers of alcohol-related road fatalities and serious road injuries.

Use statistical analysis methods to better estimate the number of alcohol-related road fatalities

Additional statistical analysis methods can help to obtain closer estimates of alcohol-related serious road crashes. Methods should be developed and

applied that align with the legal system and data collection framework of individual countries, rather than harmonise methods internationally.

Harmonise definitions of alcohol related road casualties

To make official country statistics comparable, definitions of alcohol related road casualties should be harmonised. A number of European countries have already adopted the definition proposed by the 2009 SafetyNet project, as "any death occurring within 30 days as a result of a fatal road crash in which any active participant was found with a blood alcohol level above the legal limit". A similar approach should be used to define a person seriously injured in an alcohol related crash, based for example on the severity level of 3+ on the Maximum Abbreviated Injury Scale (MAIS3+), so that it would be defined as "any serious injury at MAIS3+ that occurred as a result of a road crash in which any active participant was found with a blood alcohol level above the legal limit". If countries are unable to apply these recommended definitions, developing algorithms to allow for conversion of these definitions is recommended.

Source: Alcohol-Related Road Casualties in Official Crash Statistics (ITF, 2018)

Speed and crash risks

Inappropriate speed is responsible for 20 to 30% of all fatal road crashes. An analysis between speed and crash risk, reviewing eleven cases from ten countries that have recently changed speed limits or introduced a large-scale automatic speed control confirms a very strong relationship between speed and crash risk and that higher speed is associated with increased occurrence and severity of road crashes.

Reduce the speed on roads as well as speed differences between vehicles

For individuals, the risks of a severe crash might seem small, but from a societal point of view there are substantial safety gains from reducing the mean speeds on roads. Therefore, to reduce road trauma, governments need to take actions to reduce the speed on roads and also speed differences between vehicles sharing the same road.

Set speed limits based on the Safe System principles

The forces a human body can tolerate and still survive must be considered when designing the road system and setting the speed limits. Working towards a Safe System, reasonable speed limits are 30 km/h in built up areas where there is a mix of vulnerable road users and motor vehicle traffic; 50 km/h in areas with intersections and high risk of side collisions; and 70 km/h on rural roads without a median barrier and thus a risk of head-on collisions. In urban

areas, speed above 50 km/h is not acceptable. Where motorised vehicles and vulnerable road users share the same space, such as in residential areas, 30 km/h is the recommended maximum.

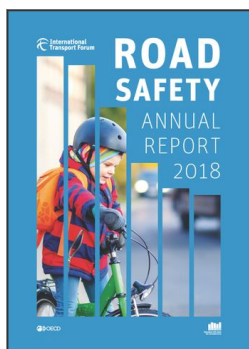
Implement compensation measures where speed limits are increased

If a speed limit increase is envisaged, stricter enforcement or an upgrade of the infrastructure is recommended to compensate for the increased risk from higher mean speed. Without such compensatory measures, more deaths and injured road users can be expected.

Use automatic speed control to reduce speed effectively

Experience worldwide has proven the effectiveness of automatic speed control systems in reducing speed, and in turn road crash frequency. Section control (using measurement of average speed over a section of road) is a relatively new measure, which seems to be very effective not only in reducing speed but also in contributing to more homogenised traffic flow.

Source: Speed and Crash Risks (ITF, 2018)



From:
Road Safety Annual Report 2018

Access the complete publication at:

<https://doi.org/10.1787/1c884dcb-en>

Please cite this chapter as:

International Transport Forum (2018), "Road Type", in *Road Safety Annual Report 2018*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/2676f584-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.