World Health Organization

Eastern Mediterranean Region

DECADE OF ACTION FOR ROAD SAFETY 2021 - 2030

Road safety in the Eastern Mediterranean Region

Facts from the *Global status report on road safety 2023*

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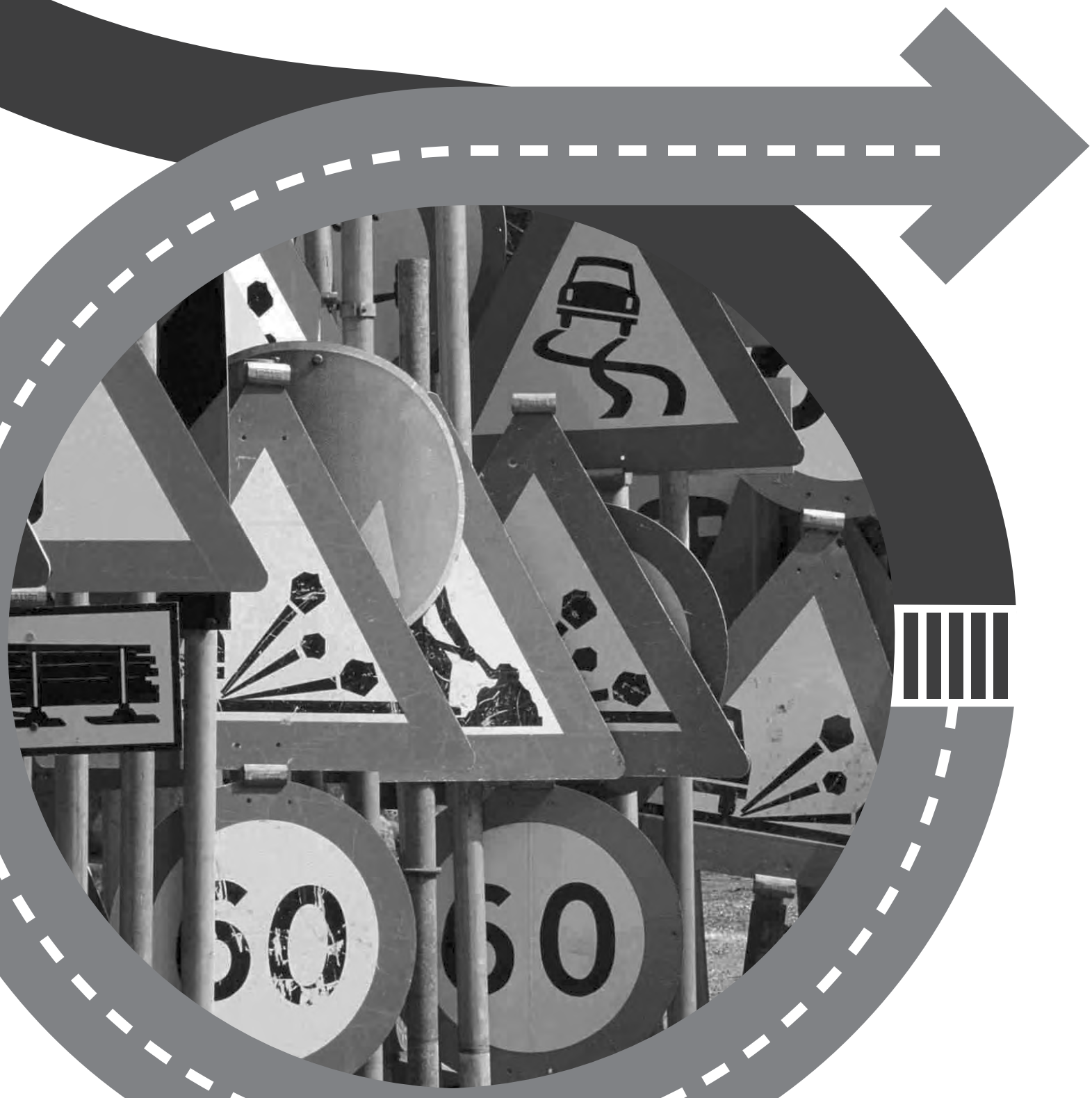

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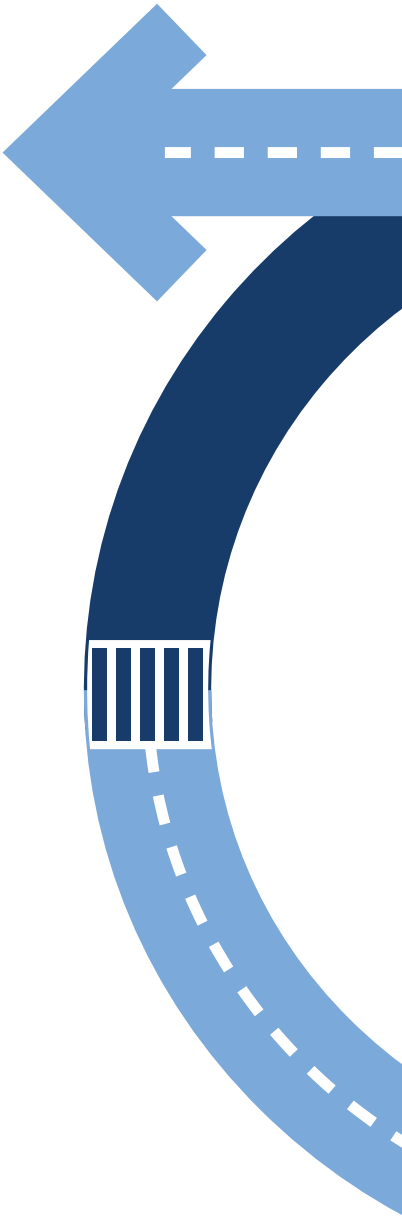
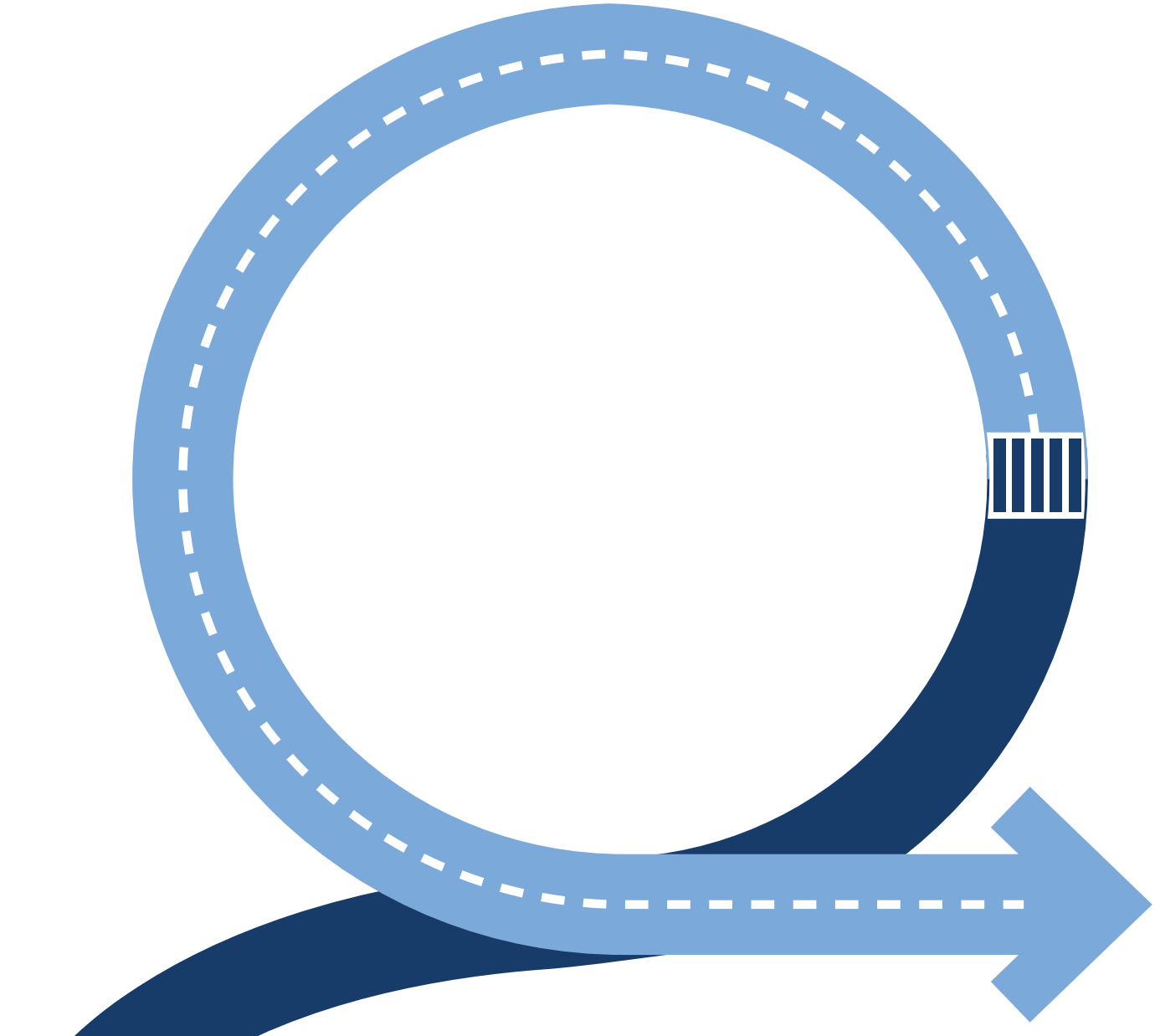


Tables



Figures

Key findings

The Eastern Mediterranean Region has the

equal second-highest road traffic death rate per 100 000 population

globally, a position shared with the South-East Asia Region.

Road traffic injuries resulted in an estimated

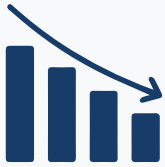
125 781 deaths

in the Eastern Mediterranean Region in 2021, which represents almost

11% of global road traffic deaths.

Road traffic injury

is a problem for all countries and territories in the Region, regardless of their income level. Almost all income groups, with the exception of lower-middle-income countries, have a higher road traffic death rate than the global rate. The regional rate for high-income countries is almost twice the average rate of other high-income countries globally.



Fourteen countries and territories in the Region

succeeded in **decreasing their estimated road traffic death rates** between 2016 and 2021, but more efforts are needed to achieve the global target of a 50% reduction in deaths and injuries.

By share, **49%** of reported road traffic deaths occur among **vulnerable road users** (pedestrians, motorcyclists and cyclists), whereas **drivers and passengers of four-wheeled vehicles** account for **39%** of road traffic deaths.

The burden of road traffic deaths is disproportionately borne by

males (89%),

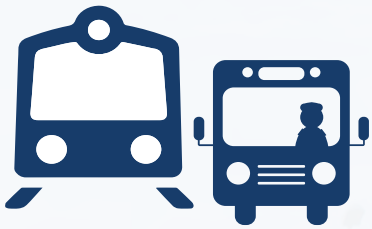
and **69%** of reported road traffic deaths occur among those

under the age of 45 years.

Twenty countries and territories
in the Region have
road safety lead agencies,
responsible for coordination, policy development, legislation, and monitoring and evaluation. However, resource mobilization to support these functions is needed.

Thirteen countries and territories in the Region have a
national road safety strategy,
but more effort is needed to develop or review road safety strategies.

Interventions to support
multimodal transport
are growing, but investment in public transport systems, land-use recognition in urban planning, and improving safety for pedestrians and pedal cyclists are required.



None of the countries and territories in the Region

have national laws that meet
best-practice criteria
on all of the key road safety behavioural risk factors (speeding, drink–driving, and non-use of motorcycle helmets, seatbelts and child restraints).

Only one country
in the Region applies all eight United Nations
priority vehicle safety standards.

Several mechanisms to enforce
road traffic legislation
are available, and more work is needed to identify best practices for these policing mechanisms.

Monitoring and evaluation of road safety performance
needs strengthening, including through implementing routine data systems and improving research in road safety.

All countries and territories have a formal **driver licensing system**,
but formal licensing processes need strengthening.


STOP

Introduction

Worldwide, it is estimated that 1.19 million road traffic deaths occurred in 2021, corresponding to a rate of 15 deaths per 100 000 population. The Eastern Mediterranean Region accounted for 11% of global road traffic deaths, at a rate of 16 deaths per 100 000 population *(1)*. Road traffic injuries continue to be a major problem for all countries and territories in the Region, regardless of their income level.

In 2020, United Nations General Assembly Resolution A/RES/74/299 proclaimed a second Decade of Action for Road Safety (for the period 2021–2030), with an ambitious target to reduce road traffic deaths and injuries by at least 50% by its end *(2)*. In response to this resolution, the *Global Plan for the Decade of Action for Road Safety 2021–2030* was developed by the World Health Organization (WHO), the United Nations Regional Commissions and partners, drawing on the safe system approach with the integration of road safety in relevant policy agendas. The aim of the Global Plan is to inspire and guide the development and implementation of national plans adapted to local contexts that build upon the efforts and lessons learned over the last 10 years *(3)*. In the Eastern Mediterranean Region, WHO has developed a guide to documenting and reviewing national efforts made in the first Decade of Action, to inform action in the new decade. A regional strategic action framework to strengthen road safety systems was also developed in full consultation with Member States and was endorsed by them in resolution EM/RC70/R.1 at the 70th session of the WHO Regional Committee in 2023. It is a key instrument for supporting countries and territories in the Region to operationalize the Global Plan at the national level *(4)*.

Since 2021, WHO has worked with Member States to develop a fifth *Global status report on road safety (GSRRS)*. The GSRRS 2023 aims to monitor progress relating to the Decade of Action for Road Safety 2021–2030 and the Sustainable Development Goals target 3.6 at the national and international levels, to evaluate the gaps in road safety nationally, to stimulate action and to generate data to encourage research on road safety implementation decision-making *(1)*. In addition to the need for analysis of the status of road safety globally, there is a need to better understand the situation and progress in the Eastern Mediterranean Region. Such knowledge is important for informing related policy and practice and for deepening dialogue and strengthening partnerships and action towards preventing road traffic injuries and deaths. This regional status report presents findings with the aim of addressing this need.

Methods

The analysis in the current regional status report is based on two components:

1. **Data from the GSRRS 2023**. The GSRRS described the status of road safety in 170 countries around the world, including 21 of the 22 countries and territories of the Eastern Mediterranean Region.[1] These countries and territories represent 99.8% of the Region's population and comprise six high-income, 10 middle-income and five low-income countries. The GSRRS 2023 was developed through an iterative and consultative process with participating countries and territories. In the first phase, requests for data were sent out in 2021, through a survey administered by WHO headquarters, to the regional and national data focal persons appointed in each WHO region and country. The self-administered survey contained questions relating to the status of 12 areas.[2] A multisectoral consensus meeting engaging experts from different sectors within each country discussed and came to an agreement on the responses to the survey questions. Based on the reported number of road traffic deaths and the source of data, adjustments were made to account for potential underreporting and resulted in estimated numbers of fatalities. A final consultation was then carried out to enable countries and territories to respond to any changes that resulted from the verification and validation process of the WHO estimated fatalities. This consultation provided respondent countries and territories with an opportunity to comment on these estimates, which are often much higher than the official statistics.

2. **Aligning the regional findings of the GSRRS with the checklist provided in the regional guide *Documenting road safety: a guide for governments and lead agencies (5)***.The GSRRS 2023 findings related to the participating countries and territories of the Eastern Mediterranean Region were reviewed using the priority checklist in the *Documenting road safety* guide. The checklist presents a systematic approach to reviewing and understanding the progress in road safety over recent years, using a structured framework aligned with international documentation and best practice. This checklist is presented in Annex 1. The analysis identified areas from the checklist for which data were collected for GSRRS 2023. For example, the checklist identifies various road safety interventions and groups them into categories, such as "safety of road users" and "institutional management". For measures to mitigate the risk of road traffic injuries, the percentage of identified measures that were implemented in each category was calculated for each country and territory. The regional average percentage was then calculated for each category.

1. The 21 participating countries/territories are Afghanistan, Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Libya, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen.

2. These areas are burden of road traffic injuries, strategies and targets, information systems, exposure to road traffic crashes, safety of road infrastructure, safety of vehicles, insurance, speed control, impaired driving, use of protective devices, post-crash response, and governance and financing.

Section 1.

Regional burden

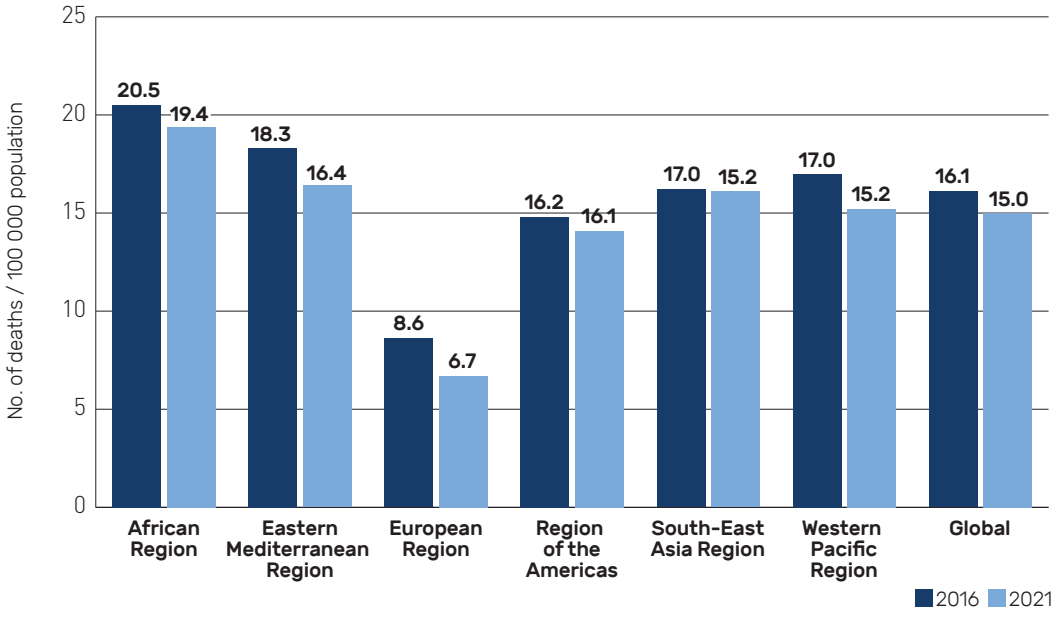
Despite the progress made in the countries and territories of the Eastern Mediterranean Region, it still has the second-highest road traffic death rate in the world.

1.1 Road traffic death rates, regional comparison and by country income level

In 2021, an estimated 125 781 people died from road traffic injuries in the Eastern Mediterranean Region, accounting for almost 11% of the world's estimated road traffic deaths. Despite the decrease in the overall regional road traffic death rate from 18.0 in 2016 to 16.4 in 2021, the Region still has the equal second-highest road traffic death rate in the world, a rate shared with the South-East Asia Region and after the African Region (19.4 per 100 000 population) (Fig. 1).

Estimated road traffic death rates vary greatly among countries and territories in the Region, ranging from a low of 4.7 to a high of 50.3 deaths per 100 000 population. The number of countries and territories with an estimated death rate lower than the regional rate increased from six in 2016 to 11 in 2021 (Bahrain, Egypt, Jordan, Kuwait, Lebanon, occupied Palestinian territory, Oman, Pakistan, Qatar, Tunisia and United Arab Emirates). The United Arab Emirates is among 10 countries and territories from four WHO regions that achieved the reduction target of at least 50% in their road traffic fatality numbers.

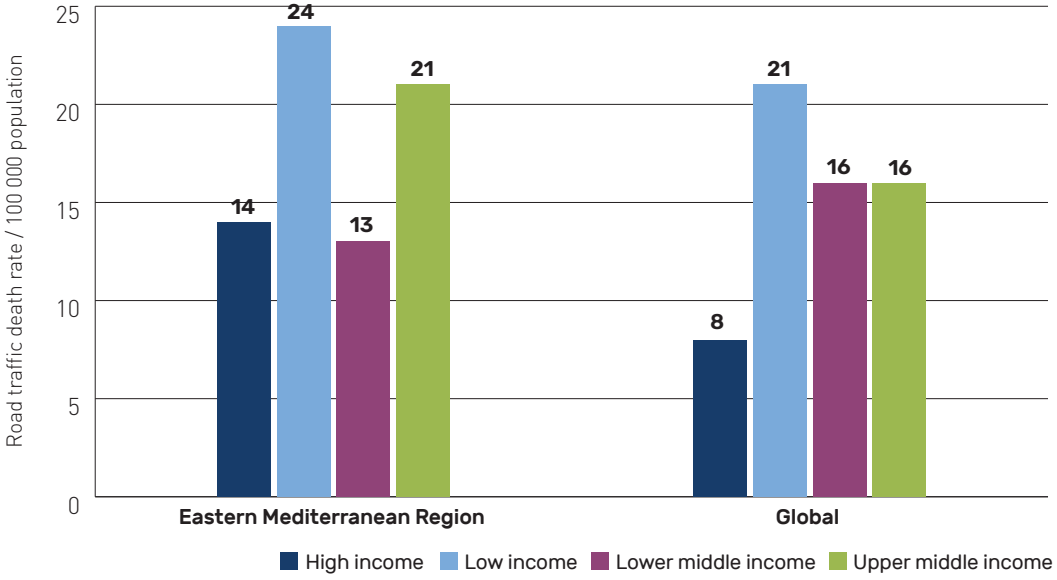
Fig. 1. Road traffic death rates per 100 000 population, WHO regions and the world, 2016 and 2021



High-income countries in the Region have an overall road traffic death rate that is almost twice the global average for similar countries

The overall estimated road traffic death rate for lower middle-income countries in the Region is lower than the global average for such countries. The overall rates for other income groups (low, upper middle and high) are higher than their respective global rates, and the the regional rate for high-income countries is almost twice the average rate of high-income countries globally (Fig. 2).

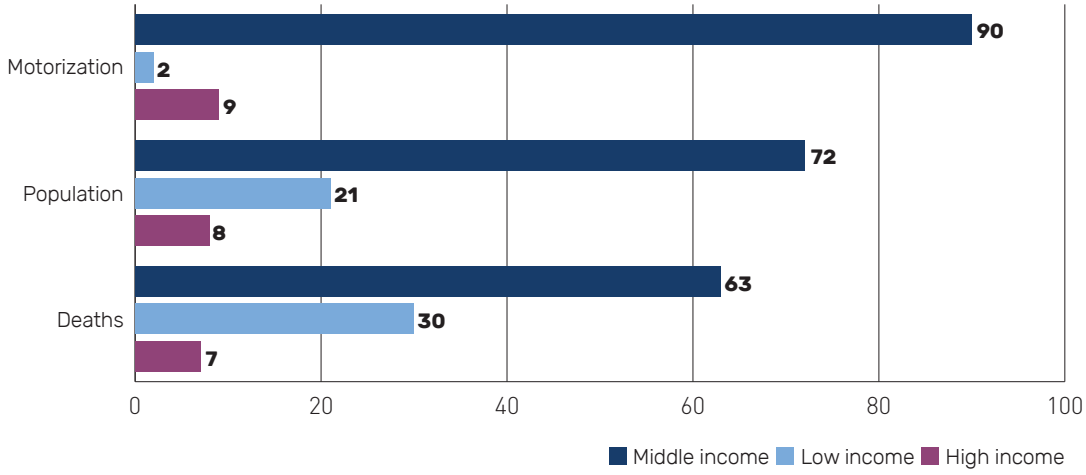
Fig. 2. Road traffic death rates per 100 000 population by country income level, Eastern Mediterranean Region and the world, 2021



Low-income countries bear a disproportionate share of deaths relative to their motorization level.

Similar to the global trend, low- and middle-income countries account for 93% of road traffic deaths in the Region. However, 30% of regional deaths occur in low-income countries even though these countries account for only 2% of the Region's motorized vehicles (Fig. 3).

Fig. 3. Share (%) of regional population, road traffic deaths and registered motorized vehicles, by country income level, 2021

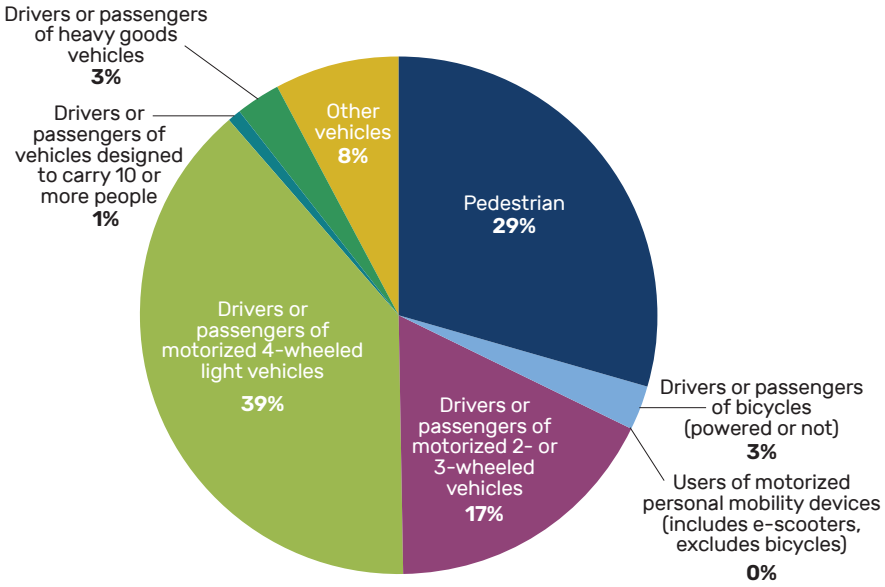


Both vulnerable road users and car occupants are heavily affected.

1.2 Fatalities by road user type

Only nine countries in the Region reported a comparable figure on deaths by type of road user, based on the categorization surveyed for the GSRRS (Bahrain, Egypt, Islamic Republic of Iran, Lebanon, Libya, Morocco, Qatar, Syrian Arab Republic and Tunisia) (Fig. 4). Among these countries, nearly half of deaths occurred among vulnerable road users (pedestrians, drivers/passengers of motorized two- or three-wheelers, and cyclists). Users of four-wheeled vehicles comprised 39% of reported deaths. Usage of personal mobility devices is increasing in the Region; however, this category was not reported in current statistics. It is worth noting that Iraq, Jordan, occupied Palestinian territory, Oman, Sudan and United Arab Emirates also report deaths by type of road user, using another national categorization.

Fig. 4. Share (%) of road traffic deaths by type of road user in nine selected countries, 2021



Note: Countries reporting are Bahrain, Egypt, Islamic Republic of Iran, Lebanon, Libya, Morocco, Qatar, Syrian Arab Republic and Tunisia.

Males and younger productive age groups are hardest hit.

Road traffic deaths in the Region vary by sex and age. The number of road traffic deaths disaggregated by sex was reported by 17 of the 21 participating countries and territories (Afghanistan, Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Morocco, occupied Palestinian territory, Oman, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia and United Arab Emirates). Males accounted for the majority (89%) of reported road traffic deaths in the Region. This overrepresentation could be partly attributed to the higher number of motorized journeys taken by men *(3)*.

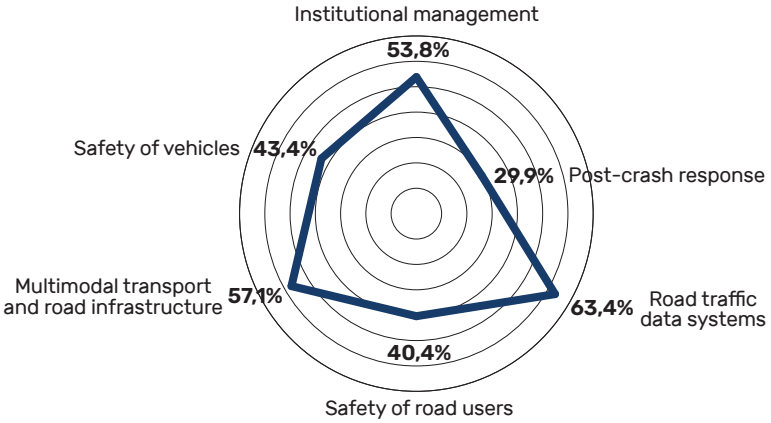
The number of road traffic deaths by age was reported as per the survey questionnaire by only 11 countries and territories (Bahrain, Egypt, Iraq, Islamic Republic of Iran, Lebanon, Morocco, occupied Palestinian territory, Qatar, Sudan, Tunisia and United Arab Emirates). Another five countries and territories reported deaths by age group using another classification system (Jordan, Kuwait, Oman, Saudi Arabia and Syrian Arab Republic). Around 69% of reported road traffic deaths occurred among those under the age of 45 years. Those aged 15–29 years accounted for more than one third of reported road traffic deaths in the Region.

Section 2.

Measures to mitigate risk of road traffic injuries

For the GSRRS 2023, countries and territories reported on whether they implemented various road safety interventions, which the regional *Documenting road safety* guide's checklist groups into categories such as "post-crash response" and "safety of vehicles" *(5)*. For the regional analysis, survey responses were used to calculate the percentage of interventions on the checklist that the respective country or territory had implemented in a category. The regional average for the percentage of implemented interventions per category was then calculated from the country-level results and ranged from 30% of all interventions on the checklist in the case of post-crash responses to 63% in the case of data systems (Fig. 5). Results for individual countries and territories varied widely. For example, in the case of vehicle safety interventions, some countries and territories reported implementing 22% of the interventions on the checklist and others reported implementing them all. The range for post-crash response interventions was between 0% and 57%, and for data systems it was between 13% and 94%.

Fig. 5. Regional average percentage of road safety interventions from the *Documenting road safety* checklist implemented by countries and territories, by category, 2021



Note: *Interventions and their categories are as presented in the priority checklist in the regional guide* Documenting road safety: a guide for governments and lead agencies.

Appropriate land use is needed in the technical design of road infrastructure.

2.1 Multimodal transport and safe road infrastructure

The demand for urban mobility is expected to exceed the capacity of systems that rely largely on private vehicles. Appropriate land-use planning provides an optimal mix of motorized and non-motorized transport modes. Countries and territories need to adapt land-use planning to their local contexts *(3)*. In all, 13 countries in the Region have technical design and operational standards that recognize the importance of land use and how land-use considerations influence the expected mix of different road users within the transport system (Afghanistan, Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Libya, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia and United Arab Emirates).

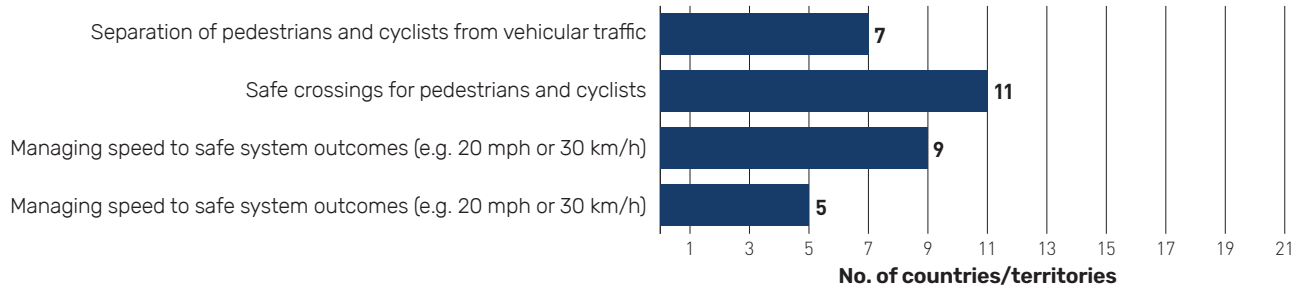
Investment in public transport systems to facilitate the safe and efficient movement of large and growing populations is central to addressing multimodal transport issues *(3)*. Nine countries have national road safety strategies with a specific objective to promote convenient access to public transport such as rapid transit systems (e.g. urban metro rail or bus rapid transit) and formal bus or minibus systems (Iraq, Islamic Republic of Iran, Jordan, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic and United Arab Emirates). Egypt, Oman and United Arab Emirates reported having targets for government investment for this objective. Eight countries are collecting data on publicly operated road transport (Iraq, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic and United Arab Emirates).

Six countries in the Region have funds for investment in public transport to increase its accessibility and use that include rapid transit systems and formal bus/minibus systems (Egypt, Islamic Republic of Iran, Morocco, Oman, Pakistan and United Arab Emirates).

Interventions to improve safety for pedestrians and pedal cyclists need to be put in place.

The availability of cycle lanes is important for eliminating risks to cyclists from motorized traffic *(1)*. Only five countries in the Region reported the length of public roads dedicated to cycle paths (Afghanistan, Bahrain, Islamic Republic of Iran, Qatar and United Arab Emirates) *(1)*. Interventions to improve pedestrians' and cyclists' safety exist in the Region, such as applying global street design guidelines *(6)*, speed management, safe crossing and separation from vehicular traffic (Fig. 6).

Fig. 6. Number of countries and territories with interventions to improve pedestrians' and cyclists' safety (n=21), 2021

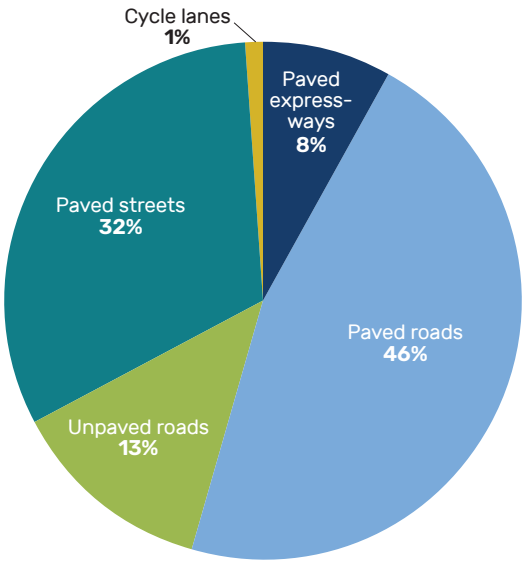


Moreover, in 16 countries, a systematic programme is available to target investment and upgrade higher-risk locations for any road user type on existing roads (Afghanistan, Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Libya, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia and United Arab Emirates).

A functional hierarchy of roads is developed.

Functional classifications of road infrastructure must be planned, designed, built and operated to enable safe mobility *(3)*. Among the 19 countries and territories in the Region that provided information in this regard, the total length of public roads reported was 2 440 389 kilometres. Only 1% of these public roads was reported to be cycle lanes, and 15% of the infrastructure was reported to be unpaved (Fig. 7).

Fig. 7. Share (%) of public roads by functional classification of road infrastructure in respondent countries and territories (n=19), 2021



The design of new roads needs to be further improved.

The United Nations conventions on road traffic and on road signs and signals, as well as Voluntary Global Performance Target 3, entail working towards ensuring that, by 2030, all new roads achieve technical standards that consider road safety for all road users or achieve a three-star rating or better for safer new roads *(7)*. Sixteen countries reported having technical design standards that account for the safety of all road users and that must be met in the development of new roads (Afghanistan, Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Kuwait, Libya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia and United Arab Emirates). However, only 50% of those countries have technical designs that align with all United Nations conventions (Bahrain, Iraq, Libya, Morocco, Oman, Pakistan, Qatar and United Arab Emirates). In addition, nine countries reported having plans for new road infrastructure projects mandating a formal road safety audit and/or star/safety rating assessment that considers the safety of all road users (Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates).

Maintenance and formal road safety inspections on existing roads need to be strengthened further.

Voluntary Global Performance Target 4 states that "by 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users that take into account road safety" *(7)*. Five countries in the Region reported that they perform both maintenance safety inspections and formal road safety assessments that consider all road users (Iraq, Jordan, Saudi Arabia, Tunisia and United Arab Emirates). Another six countries conduct one or other of these assessments for their existing roads (Afghanistan, Bahrain, Islamic Republic of Iran, Libya, Qatar and Syrian Arab Republic).

Work zone safety and management processes need to be considered.

Better understanding of work-related injuries due to crashes is a first step to designing and implementing interventions for work zone safety *(3)*. Only four countries and territories in the Region reported road traffic deaths related to work (occupied Palestinian territory, Morocco, Tunisia and United Arab Emirates).

Few countries and territories are developing and promoting standards for safe road design.

Policies and strategies to support the safety of roads

Of the 13 countries in the Region that have a national road safety strategy, eight have targets for ensuring that roads meet technical safety standards for all users and only three countries have targets for promoting walking as an alternative to car travel.

The *Global street design guide* offers technical details to inform street design that prioritizes pedestrians, cyclists and transit riders *(6)*. A star-based road safety assessment was developed by the International Road Assessment Programme. It rates roads from 0 to 5 stars, and a 3-star rating is widely accepted as the minimum acceptable rating for new and old roads *(8)*. In the Region, six countries reported using the *Global street design guide* (Jordan, Libya, Pakistan, Qatar, Tunisia and United Arab Emirates), and another five reported using the star-based rating assessment (Egypt, Islamic Republic of Iran, Lebanon, Qatar and Saudi Arabia).

The number of registered two- and three-wheeled vehicles has increased in the Region.

2.2 Vehicle safety

Data on motorized vehicles registered for the year 2021 revealed the following:

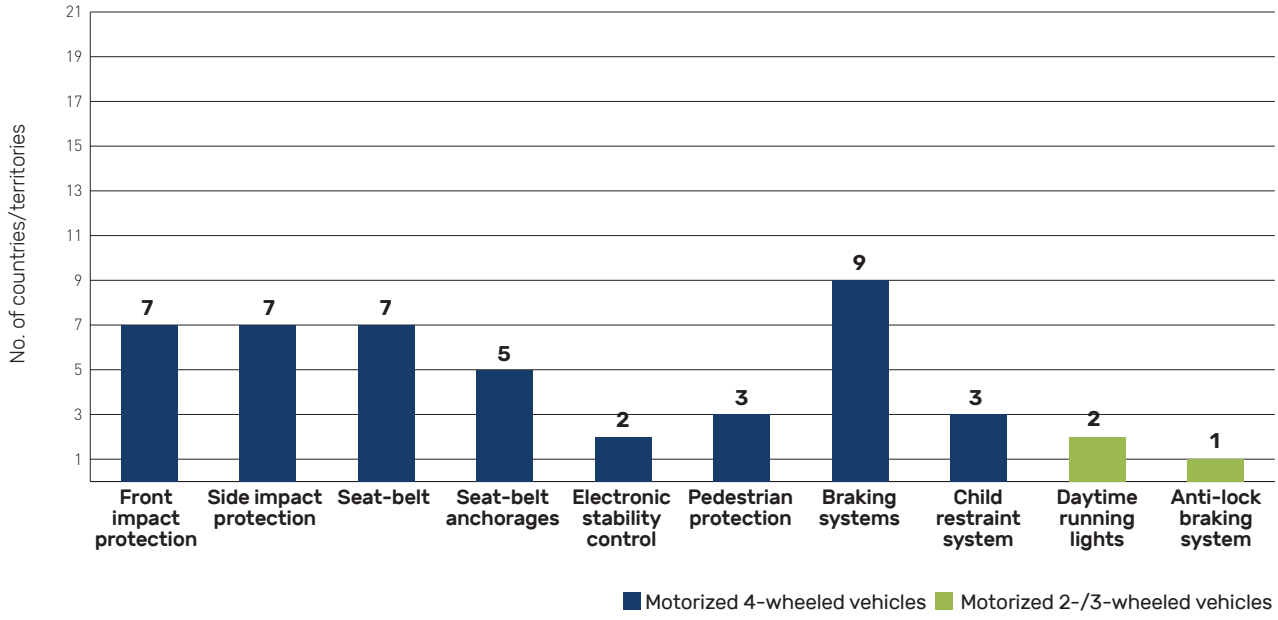
- Out of 21 countries and territories, 12 reported data on registered vehicles by type of vehicle (Bahrain, Egypt, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Morocco, occupied Palestinian territory, Oman, Pakistan, Tunisia and United Arab Emirates).
- The proportion of motorized two- and three-wheeled vehicles has increased in the Region, from 36% of all registered vehicles in 2016 to 44% in 2018. This figure varies between countries and territories, ranging from a third of registered vehicles in Bahrain, Egypt, Islamic Republic of Iran and Morocco, up to 82% of registered vehicles in Pakistan.
- Four-wheeled vehicles still form a higher proportion of all vehicles in most countries, reaching more than 80% of registered vehicles in eight out of the 12 countries and territories (Bahrain, Jordan, Lebanon, occupied Palestinian territory, Oman, Somalia, Tunisia and United Arab Emirates).

Only one country applies all United Nations core vehicle safety standards.

Countries and territories should apply high-quality harmonized safety standards for new and used motor vehicles, safety belts, child restraint systems and motorcycle helmets. The United Nations World Forum for Harmonization of Vehicle Regulations sets 10 core safety standards for motor vehicles (Fig. 8). Vehicles that meet the requirements of these standards are less likely to be involved in road traffic crashes and, in the event of a crash, are less likely to cause serious injury *(9)*.

Only one country in the Region, United Arab Emirates, applies all 10 core standards; Saudi Arabia applies eight standards and Morocco applies seven. The remaining countries and territories apply less than half of these standards. Vehicle safety standards in motorized two- and three-wheeled vehicles are applied much less frequently than in four-wheeled vehicles. However, 13 countries and territories in the Region reported that their government incorporates procurement practices for its vehicle fleet that include vehicle safety requirements (Afghanistan, Jordan, Kuwait, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Syrian Arab Republic, Tunisia and United Arab Emirates).

Fig. 8. Number of countries and territories that apply each of the 10 United Nations core vehicle safety standards (n=21), 2021



Eighteen countries and territories impose restrictions on imported and exported vehicles.

Countries and territories should ensure that audit processes that include mandatory periodic technical inspections *(3)* are in place to check import standards. They should also discourage the import and export of new or used cars, which can have reduced safety standards.

Eighteen countries and territories in the Region impose restrictions on the export or import of used vehicles, and 13 of these countries and territories use vehicle safety inspection criteria for regulating these restrictions (Bahrain, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Sudan and United Arab Emirates). Examples of the criteria used by some countries and territories in the Region are the age of the vehicle, engine power, price, after-sale service and taxes.

Twenty countries and territories have a national law for periodic vehicle inspections.

The 1997 *Agreement Concerning the Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of Such Inspections* recommended periodic vehicle inspection that focuses on environmental and safety issues and contains guidance on scope, test frequency, inspection items, test methods, reason for failures and assessment of defects *(10)*.

Twenty countries and territories reported having a national law for regulating periodic vehicle inspection. Thirteen of these laws include a scheme for inspecting motorized four-wheeled light vehicles, powered two- or three-wheelers, and professional vehicles regardless of vehicle size or number of wheels (Bahrain, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Sudan and United Arab Emirates). Only seven countries and territories use visual inspection by both trained and supervised employees of the inspection site and testing equipment (Iraq, Islamic Republic of Iran, Jordan, Kuwait, Qatar, Sudan and United Arab Emirates).

Five countries and territories apply or plan to apply a new car assessment programme.

A new car assessment programme is a government car safety programme tasked with evaluating new automobile designs for performance against various safety threats.

Three countries in the Region reported applying for or participating in a new car assessment programme (Bahrain, Kuwait and Tunisia), and another two (Saudi Arabia and United Arab Emirates) are planning to participate.

In addition to participating in these programmes, governments should encourage the dissemination of consumer information on vehicle safety based on them *(3)*. Five countries reported that they inform consumers on whether their vehicle contains any of the recommended minimum safety equipment or disseminate safety rating results on new cars to be sold in the country (Morocco, Oman, Pakistan, Saudi Arabia and Tunisia).

Policies and strategies to support safety of vehicles

Of 13 countries that have a national road safety strategy, 10 reported having targets for ensuring new vehicles meet United Nations technical safety regulations or equivalent.

All respondent countries and territories have formal driver licensing systems, but graduated driver licensing must be further strengthened.

2.3 Driver licensing, training and testing

The Global Plan makes the following recommendations to countries and territories regarding traffic rules and drivers' licensing:

- "Set out and regularly update traffic rules and codes of conduct for road users.
- Provide information and education on traffic rules.
- Set minimum age and vision requirements for drivers.
- Implement competency-based testing for driver licensing and adoption of graduated driver licensing for novice drivers.
- Set limits for maximum driving time and minimum rest periods for professional drivers.
- Make liability insurance mandatory for operators of motorized vehicles" *(3)*.

The survey revealed that all respondent countries and territories in the Region have a formal driver licensing process for motorized vehicles that is supported by legislation. Knowledge tests for all motorized vehicles are applied in all countries and territories. Practical and medical tests are applied in all respondent countries and territories for four-wheeled vehicles and in 20 out of the 21 countries and territories for motorized two- or three-wheeled vehicles.

In 12 countries, new drivers are required to hold a learner's permit prior to obtaining a full licence (Afghanistan, Bahrain, Kuwait, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, United Arab Emirates and Yemen), and eight countries require a minimum mandated period of up to three months between the issuing of a learner's licence and obtaining a full licence (Bahrain, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, United Arab Emirates and Yemen). Fourteen countries and territories in the Region have a penalty/demerit system for repeat driving offenders (Afghanistan, Bahrain, Iraq, Islamic Republic of Iran, Lebanon, Morocco, occupied Palestinian territory, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen).

The minimum driving age by vehicle type varies across the Region.

The age a person is legally allowed to drive a motorized vehicle may vary by type of vehicle and vary across the Region (Fig. 9). For example:

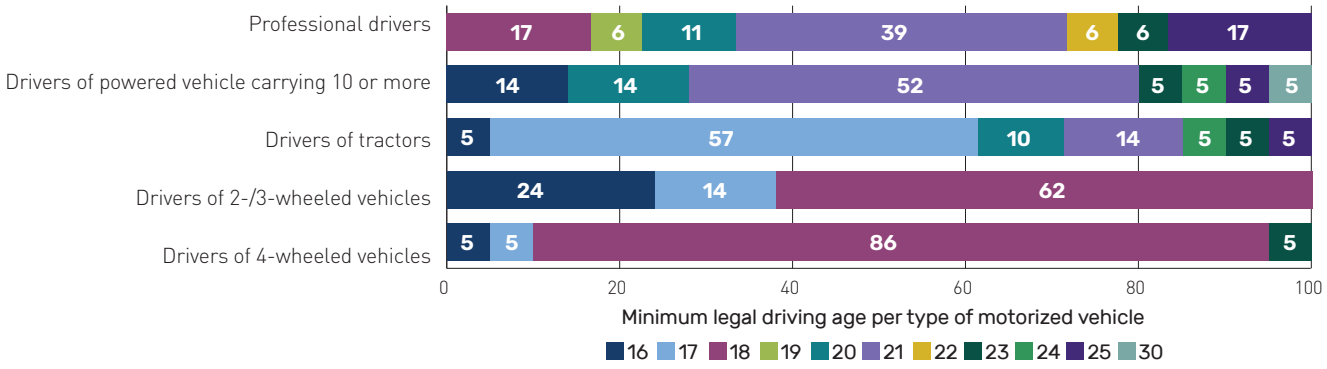
The majority of countries and territories require drivers to be at least 18 years of age to drive a four-wheeled vehicle, and more than half have the same age requirement for two- and three-wheeled vehicles.

More than half of the countries and territories require drivers to be at least 21 years of age to drive a tractor or be a professional driver (Bahrain, Egypt, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Libya, Morocco, occupied Palestinian territory, Pakistan, Qatar, Somalia, Syrian Arab Republic, Tunisia and United Arab Emirates).

Policies and strategies to support driver licensing

Of 13 countries and territories in the Region with an available national road safety strategy, only five have targets for ensuring rest periods for professional drivers.

Fig. 9. Age a person is legally allowed to drive a motorized vehicle, percentage of countries per age limit (n=21), by licence type, 2021



All respondent countries and territories have a national speed law, but few align with best practice.

2.4 Speed management

The WHO best-practice criteria for speed laws include a national law with urban limits set at 50 km/h or lower, with local authorities able to further modify this limit *(1)*.

All respondent countries and territories in the Region have a national speed limit law that requires penalties for violation of speed limits, but only four countries and territories are aligned with the best practice for speed limits (Lebanon, Sudan, Somalia and Tunisia).

However, established speed limits are not the only proven, effective speed management intervention. Interventions such as road modifications to reduce speed, speed enforcement and awareness-raising are also needed *(11)*. Reported data on enforcement mechanisms revealed that 14 countries and territories employed automatic detection systems, police officers using speedometers,[3] speed limiters and infrastructure modifications (Bahrain, Egypt, Islamic Republic of Iran, Jordan, Lebanon, Libya, occupied Palestinian territory, Oman, Pakistan, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen). Mechanisms that rely on technology are less frequently applied – for example, geofencing[4] was used in nine countries and territories (Egypt, Jordan, Kuwait, Lebanon, occupied Palestinian territory, Oman, Qatar, Tunisia and United Arab Emirates) and intelligent speed assistance[5] was used in four countries and territories (Jordan, occupied Palestinian territory, Sudan and United Arab Emirates).

To support enforcement, speed laws need to outline the measures to be employed for their enforcement *(1)*. Only seven countries and territories have laws addressing speed camera use (Islamic Republic of Iran, Jordan, Lebanon, Morocco, Pakistan, Tunisia and United Arab Emirates), and two countries indicated in their legal texts that speed cameras would be signposted (Jordan and Morocco).

The majority of national strategies have targets to reduce vehicle speed.

Vehicle speed can be reduced using traffic calming, such as speed humps, gateway treatments, roundabouts and pavement narrowing.

Policies and strategies to support reducing vehicle speed

Of the 13 countries and territories with a national road safety strategy that includes multiple short-term action plans, 12 have an objective to reduce vehicle speed.

3. Speed checks are undertaken with a police vehicle maintaining the same distance behind the offending vehicle and checking the speed on the police vehicle's speedometer.
4. Geofencing is the use of GPS technology to create a virtual geographical boundary, enabling software to trigger a response when a mobile device enters or leaves a particular area.
5. Intelligent speed assistance is any system that ensures that vehicle speed does not exceed a safe or legally enforced speed. In case of potential speeding, the driver can be alerted or the speed reduced automatically.

All respondent countries and territories have a national drink–driving law, but few align with best-practice criteria.

2.5 Impaired and distracted driving

The WHO best-practice criteria for drink–driving laws include a national law with alcohol levels that are defined by blood alcohol content (with alcohol limits for the general driving population at ≤0.05 g/dl and for novice drivers ≤0.02 g/dl) *(1)*. All respondent countries and territories of the Region have a national drink–driving law, but only four align with the related WHO best-practice criteria (Lebanon, Morocco, Tunisia and United Arab Emirates).

Several mechanisms to enforce drink–driving laws are applied by countries and territories.

There are several mechanisms to enforce drink–driving laws, including the use of breath testing at specific locations or times, all-year-round random breath testing, penalty/demerit points, assessment and rehabilitation, community or public service, and alcohol ignition interlocks *(1)*. In all, 10 countries and territories in the Region use penalty/demerit points (Iraq, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Morocco, occupied Palestinian territory, Saudi Arabia, Tunisia and United Arab Emirates), five countries and territories conduct all-year-round random (population) breath testing (Islamic Republic of Iran, Lebanon, Morocco, occupied Palestinian territory and Sudan), and assessment and rehabilitation are conducted in one country (Kuwait) and community or public service in another (Bahrain). None of the countries and territories uses alcohol ignition interlocks.

All fatally injured drivers involved in a road traffic crash are tested for their blood alcohol content in four countries and territories (Bahrain, Egypt, Oman and Pakistan), whereas all non-fatally injured drivers are tested in Oman and United Arab Emirates only.

All respondent countries and territories have a national drug-driving law, **but only 11 countries refer to all the specific drugs reported in the survey.**

Currently, there are no WHO best-practice criteria against which to assess drug-driving laws. While all respondent countries and territories in the Region have a drug-driving law, only 11 test for cannabis, cocaine, opiates, amphetamines and methamphetamines (Afghanistan, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syrian Arab Republic and Tunisia). Blood samples are used to test drug-driving in 14 countries (Afghanistan, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Pakistan, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia and United

Arab Emirates), and in two countries, saliva testing at specific locations or times is also used (Islamic Republic of Iran and Oman). All drivers involved in fatal and non-fatal crashes are tested for drug-driving in Bahrain, Oman and United Arab Emirates.

Maximum driving time and rest periods for professional drivers vary across the Region.

Ten countries and territories in the Region have government-issued rules for mandatory driving time and rest periods for professional drivers (Egypt, Islamic Republic of Iran, Jordan, Morocco, occupied Palestinian territory, Oman, Pakistan, Saudi Arabia, Tunisia and United Arab Emirates). The maximum driving and rest times vary among these countries and territories. The maximum allowed driving time ranged from four hours in Jordan, occupied Palestinian territory and Saudi Arabia to nine hours in Islamic Republic of Iran and Morocco. The maximum allowed rest time ranged between 15 minutes per two hours driving for non-urban road networks in Islamic Republic of Iran and eight hours in Oman and United Arab Emirates.

Policies and strategies to to prevent impaired and distracted driving

Of 13 countries and territories in the Region with an available national road safety strategy, nine have targets for decreasing distracted driving, six for preventing alcohol-impaired driving and five for preventing drug-impaired driving and for ensuring rest periods for professional drivers.

Laws to address distracted driving are available in the majority of countries and territories.

All respondent countries and territories except two have a national law that restricts distracted driving. These behaviours include talking/texting on the phone in 11 countries and territories (Bahrain, Egypt, Iraq, Jordan, Libya, Morocco, Oman, Saudi Arabia, Syrian Arab Republic, Tunisia and United Arab Emirates) and talking to a hands-free phone in four countries and territories (Iraq, Libya, Oman and United Arab Emirates). Eating and/or drinking were reported in Jordan and Saudi Arabia, and beauty routines were reported in Oman, Saudi Arabia and United Arab Emirates.

2.6 Use of protective devices

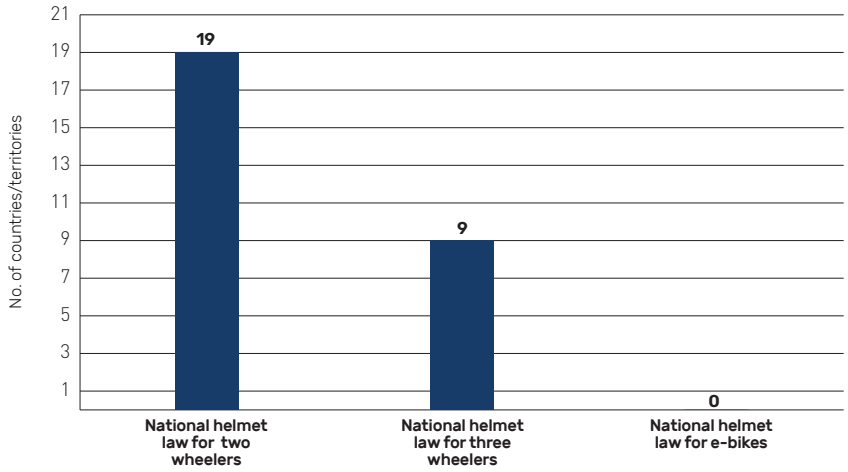
2.6.1 Motorcycle helmets

The WHO best-practice criteria for motorcycle helmet laws include a national law that covers all riders, applies to all road types and all engine types, and requires the helmet to be fastened and meet a standard *(1)*.

All respondent countries and territories except two have a national motorcycle helmet law. The motorcycle helmet laws align with WHO best-practice criteria in two countries and territories (Lebanon and occupied Palestinian territory).

It may be necessary to introduce certain exemptions to helmet laws, on reasonable grounds of age or culture. However, it must be noted that phasing in legislation and allowing certain exemptions from laws create enforcement challenges because the laws are not universally applied *(12)*. The survey revealed that none of the respondent countries and territories have exceptions to their national helmet law. Far fewer countries and territories have a national helmet law for three-wheeled vehicles than for two-wheeled vehicles. No country reported a national helmet law for e-bikes (Fig. 10).

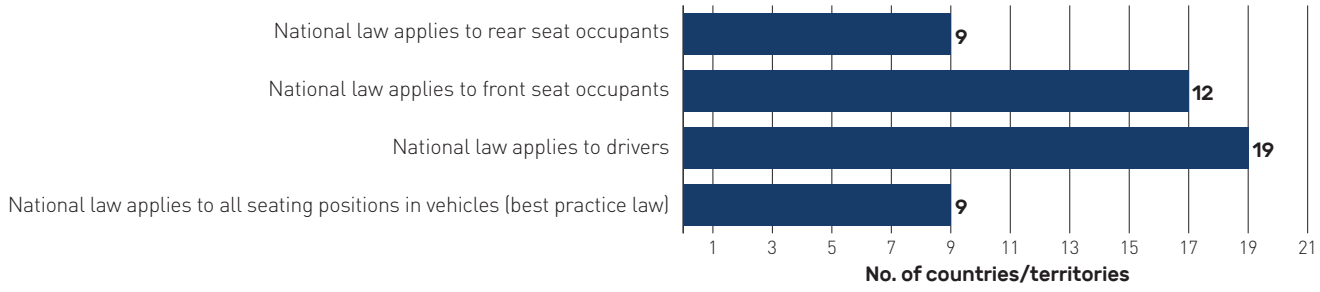
Fig. 10. Number of countries and territories aligning with WHO best practice for motorcycle helmet law (n=21), by vehicle type, 2021



2.6.2 Seat belts

The WHO best-practice criteria for seat-belt laws include having a national law that applies to all seating positions in a vehicle *(1)*. All respondent countries and territories except two have a national seat-belt law. Nine countries and territories align with WHO best practice (Islamic Republic of Iran, Lebanon, Libya, occupied Palestinian territory, Oman, Saudi Arabia, Tunisia, United Arab Emirates and Yemen) (Fig. 11).

Fig. 11. Number of countries and territories aligning with WHO best practice for seat-belt law (n=21), by occupant type, 2021



Regarding exemptions from national seat-belt laws, four countries and territories have an exception for medical and case-by-case reasons. One country exempts taxi drivers from using a seat belt, and no countries exempt pregnant women or government officials.

2.6.3 Child restraints

The WHO best-practice criterion for child restraint laws is as follows: a national law exists, indicating that children up to the age of 10 years, or 135 cm in height, must use a child restraint system that meets a standard, with children of a particular age/height prohibited from sitting in the front seats *(1)*. Six countries and territories in the Region have a national child restraint law (Bahrain, Lebanon, occupied Palestinian territory, Oman, Saudi Arabia and United Arab Emirates), but none are aligned with WHO best practice. Four countries and territories have a child restraint law that applies to children up to the age of 10 years, or 135 cm in height (Lebanon, occupied Palestinian territory, Oman and United Arab Emirates), and three countries and territories have their laws meeting one standard (Bahrain, occupied Palestinian territory and United Arab Emirates).

Nine countries in the Region prohibit children of a particular age/height from sitting in the front seats (Egypt, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan and Tunisia).

Policies and strategies for the use of protective devices

Of 13 countries and territories in the Region with an available national road safety strategy, the promotion of motorcycle helmets and the use of seat belts and child restraint systems are present in nine, 12 and seven countries respectively.

It was reported that not all countries and territories with a national law have an enforcement plan. For example, 11 and 12 out of the 19 countries with a motorcycle helmet law and a seat belt law have related enforcement plans. Five out of the six countries with a law on child restraint systems have a related enforcement plan.

2.7 Post-crash response

2.7.1 Legislation and services

Reporting shows variation in achievement of the different focus areas of post-crash response across the Region (Table 1). The availability of an eCall system was reported in three countries and territories (occupied Palestinian territory, Saudi Arabia and United Arab Emirates), whereas the professional development of emergency medical staff was reported in almost two thirds of the countries (Egypt, Iraq, Islamic Republic of Iran, Lebanon, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Tunisia and United Arab Emirates). The survey revealed that since 2016, only eight countries have conducted an assessment that resulted in a priority action plan for strengthening emergency care (Egypt, Islamic Republic of Iran, Qatar, Saudi Arabia, Sudan, Tunisia, United Arab Emirates and Yemen). It was also reported that the legal context for rehabilitative services needs to be further strengthened.

Table 1. Number of countries and territories aligned with recommended best-practice focus areas for improving post-crash response, 2021

Recommended focus area for improvement	Number of countries and territories aligned with the recommendation
1. Implementation of a single nationwide telephone number for emergencies *	12
2. Introduce a basic life support training programme for all police and civil defence staff and continued professional development training for all emergency medical services staff **	
2.1. Fully certified specialist or subspecialist programmes on emergency medicine that doctors can train for in-country	18
2.2. Fully certified specialist or subspecialist programmes on trauma surgery that doctors can train for in-country	16
2.3. A postgraduate specialization courses for nurses in emergency care or trauma care ***	14
4. Develop prehospital care systems and trauma care systems and provide early rehabilitation and support to injured patients and those bereaved by road traffic crashes	
4.1. A formal government-ratified certification pathway for prehospital providers ****	14
4.2. Legislation mandating the availability of eCall or accident emergency call systems to trigger an emergency response by a vehicle sensor in all new vehicles	3
4.3. Free to access public/government services for psychological assistance to road victims or their families	11
4.4. Legislation to guarantee rehabilitative medical care to all injured persons regardless of their ability to pay	7
5. Ensure 24-hour access – regardless of ability to pay – to operative and critical care services that are staffed and equipped	16

Notes: * *A universal access number is usually a short or easy-to-remember telephone number (generally three or four digits) that connects to all emergency services (e.g. 911 or 112).*

** *A fully certified specialist or subspecialist programme refers to a postgraduate specialist residency or Master of Medicine programme (usually 3–4 years in duration) or a dedicated subspecialist certification (usually 1–3 years in duration) for doctors that is recognized by the medical council or the equivalent licensing body of the state or country.*

*** *A postgraduate specialization course for nurses refers to a postgraduate course (usually lasting at least 6 months) in trauma or emergency nursing that is recognized by the nursing council or equivalent licensing body in the state or country.*

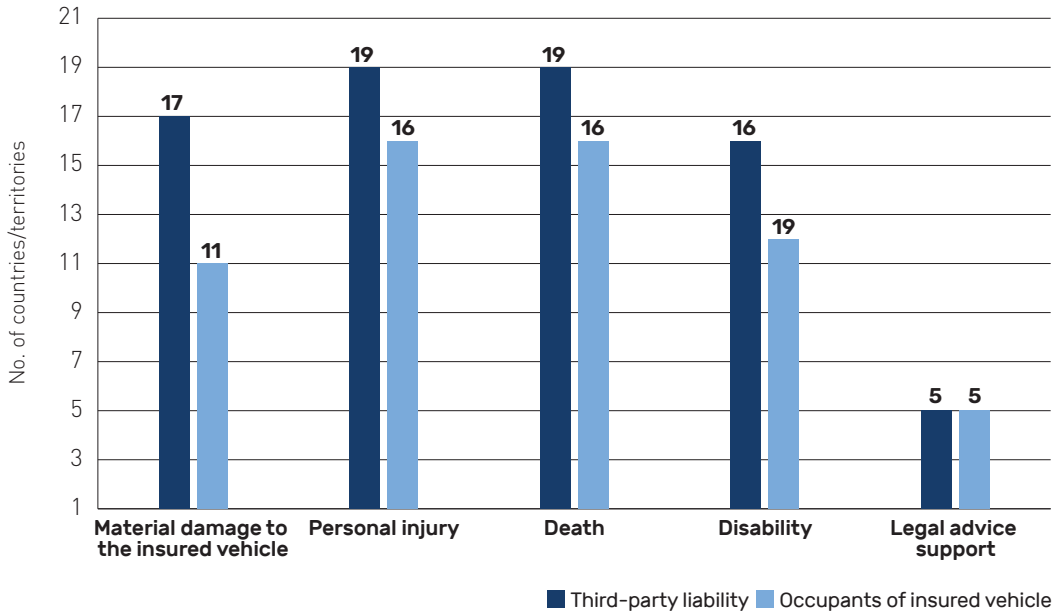
**** *A formal certification pathway means that a government agency, such as a health or education ministry, or a body they have authorized such as a university senate or licensing body, has established explicit standards and requirements for authorizing prehospital providers.*

2.7.2 Insurance

All respondent countries and territories in the Region have national legislation mandating motor insurance for all vehicles circulating on roads. The insurance applies to four-wheeled vehicles, two- and three-wheeled vehicles and buses in all countries and territories. Nineteen countries have legislation applying to heavy trucks. Two countries apply insurance on bicycles (Syrian Arab Republic and United Arab Emirates), and one country has insurance on micro mobility devices (Afghanistan). Insurance data are an important source that could be taken into account to improve the quality of the fatal and non-fatal injuries data.

A national law covering material damage, personal injury, death and disability is in force in 75% of the respondent countries and territories, whereas support in the form of legal advice is available in less than 25% of the countries and territories (Afghanistan, Kuwait, occupied Palestinian territory, Oman and United Arab Emirates) (Fig. 12).

Fig. 12. Number of countries and territories mandating insurance of motorized vehicles (n=21), by type of insurance, 2021



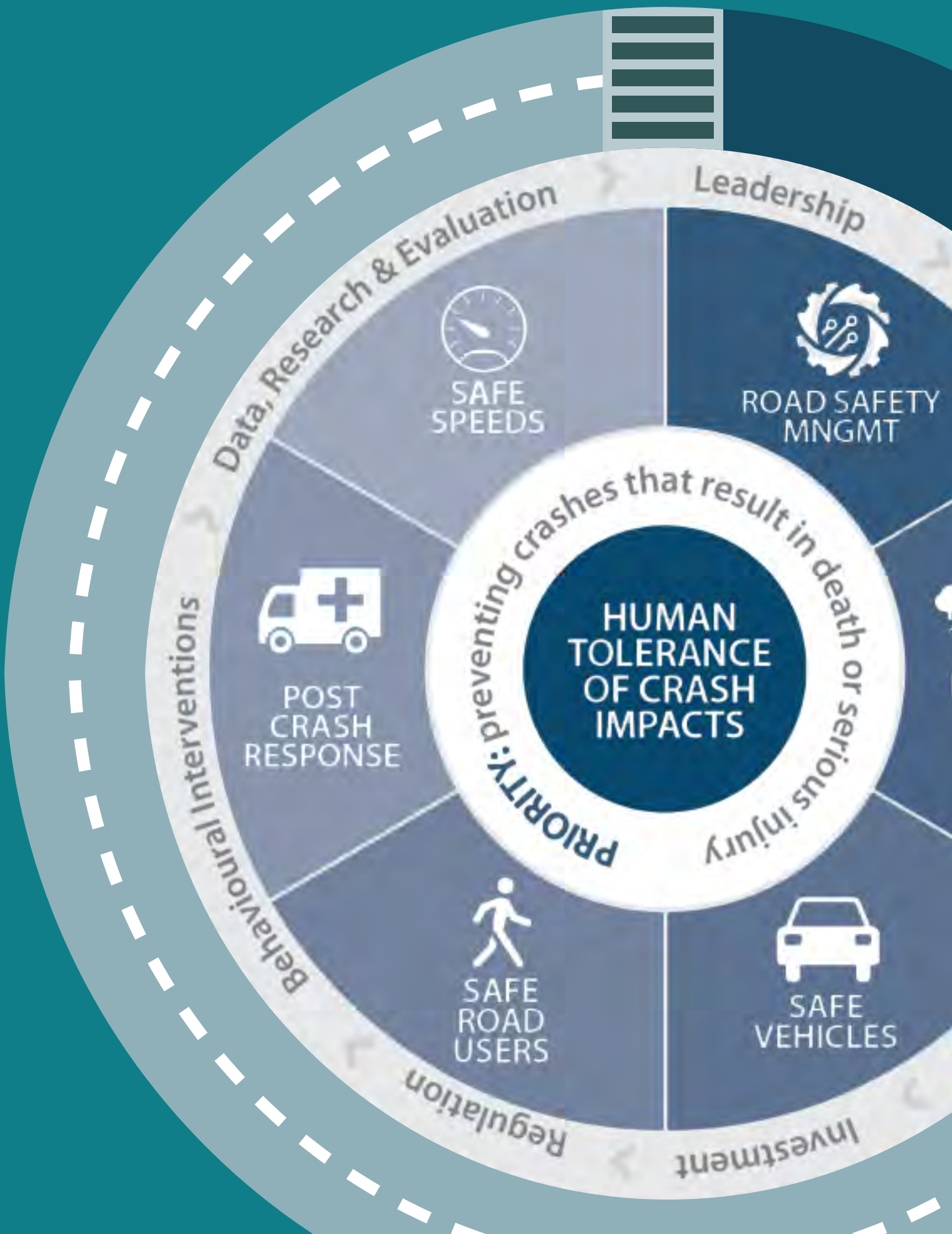
Seven countries in the Region reported data on the percentage of insured vehicles by vehicle type (Afghanistan, Bahrain, Egypt, Oman, Syrian Arab Republic, Tunisia and United Arab Emirates). The government regulates maximum or minimum insurance premiums in 11 countries and territories (Islamic Republic of Iran, Jordan, Kuwait, Lebanon, occupied Palestinian territory, Oman, Pakistan, Qatar, Syrian Arab Republic, Tunisia and United Arab Emirates), and a fund to cover victims of uninsured or unidentified vehicles is available in nine countries and territories, financed through insurance premiums, traffic fines and the general government budget (Bahrain, Egypt, Islamic Republic of Iran,

Policies and strategies to strengthen post-crash response

Of the 13 countries in the Region with an available national road safety strategy, a target for improving the time between a crash and access to professional emergency health care is available in 10 countries (Egypt, Islamic Republic of Iran, Jordan, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic and United Arab Emirates).

Jordan, Kuwait, Lebanon, Morocco, occupied Palestinian territory and Tunisia).

Improving coordination mechanisms for dispatching a multisector emergency response to incidents (fire brigade, police, ambulance) and improving the knowledge and capability of the motoring public (first aid training and public awareness campaigns) are also areas that needed to be further understood.


Leadership
ROAD SAFETY MNGMT
SAFE VEHICLES
Investment
SAFE ROAD USERS
Regulation
POST CRASH RESPONSE
Behavioural Interventions
SAFE SPEEDS
Data, Research & Evaluation
PRIORITY: preventing crashes that result in death or serious injury
HUMAN TOLERANCE OF CRASH IMPACTS

Section 3.

Measures to strengthen road safety governance

3.1 Institutional management

3.1.1 Lead agencies

The term "lead agency" refers to a single agency or government body that takes the lead on road safety in a country at the national level and that has the power to make decisions, manage resources and coordinate the efforts of all participating sectors of government across the country *(1)*. Seven countries and territories reported a change in the existence, name or location of their lead agency compared to 2017 (Iraq, Morocco, occupied Palestinian territory, Pakistan, Saudi Arabia, Syrian Arab Republic and Tunisia). In three countries and territories these changes were triggered by legal reform and administrative changes.

The functions of the lead agencies vary across countries and territories (Fig. 13). For example, five countries and territories include coordination of the traffic management function, and 17 countries and territories include public outreach and capacity-building functions.

Fourteen countries and territories in the Region have an office within the Ministry of Health or another government ministry responsible for emergency care (including trauma care) to coordinate their road safety efforts (Afghanistan, Egypt, Iraq, Islamic Republic of Iran, Kuwait, Libya, occupied Palestinian territory, Oman, Qatar, Saudi Arabia, Sudan, Tunisia, United Arab Emirates and Yemen).

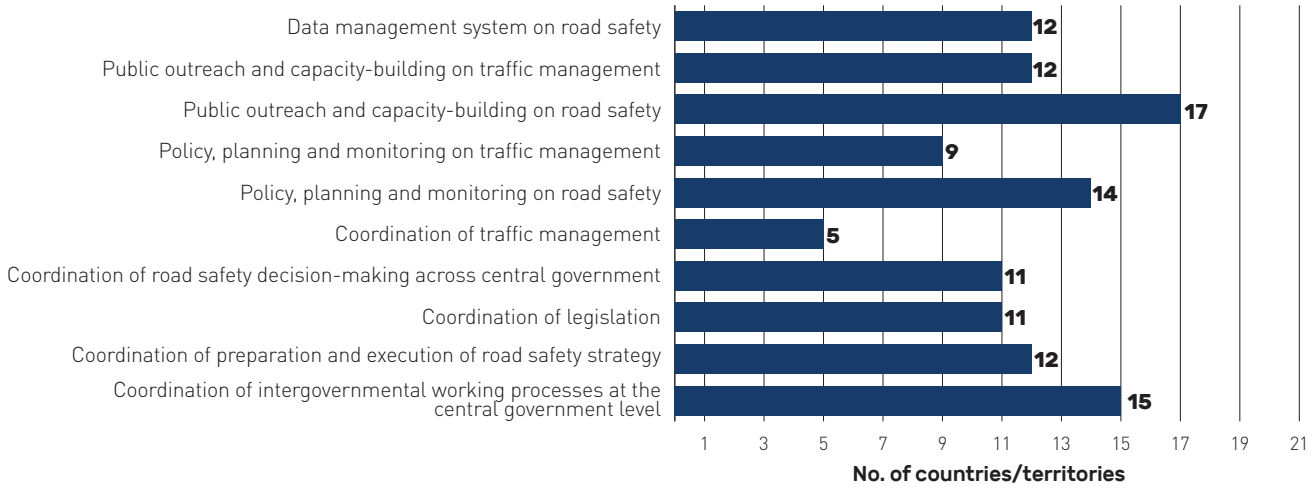
Nine countries reported the allocation of funds in the government's budget for the lead agency to conduct its functions (Afghanistan, Lebanon, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Sudan and United Arab Emirates).

3.1.2 Road safety strategies

Despite the fact that governmental institutions have the primary responsibility to design a safe road transport system and implement a road safety action plan, the role and influence of other actors – including academia, civil society and the private sector – are important contributors in adopting road safety practices and national and subnational road safety strategies *(3)*.

The survey reported that 13 countries have a national strategy that includes multiple short-term action plans (Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Jordan, Morocco, Oman, Pakistan, Qatar, Saudi Arabia,

Fig. 13. Number of countries and territories achieving various functions in their lead agency (n=21), by type of function, 2021



6. An emergency care lead office should hold a distinct and permanent position within the government. By definition, it should not be only a subunit of disaster response.

Sudan, Syrian Arab Republic and United Arab Emirates), and another country has subnational strategies. Four other countries and territories reported the national will to develop a national strategy (Iraq, Kuwait, Lebanon and Tunisia).

Of the 13 countries with a national road safety strategy, 12 have fatality reduction targets (Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Jordan, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic and United Arab Emirates), and five have a non-fatality reduction target (Jordan, Oman, Qatar, Saudi Arabia and United Arab Emirates).

Nine countries and territories reported that their national/subnational strategies were developed, implemented and evaluated in consultation with other stakeholders, including academia, civil society, the private sector and youth groups (Iraq, Islamic Republic of Iran, Lebanon, occupied Palestinian territory, Oman, Qatar, Sudan, Tunisia and United Arab Emirates).

Ten countries and territories in the Region reported having national and subnational strategies with direct implications for road safety, such as strategies from the energy sector, environmental safety, physical activity and occupational health (Iraq, Islamic Republic of Iran, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Syrian Arab Republic and United Arab Emirates).

3.1.3 Financing

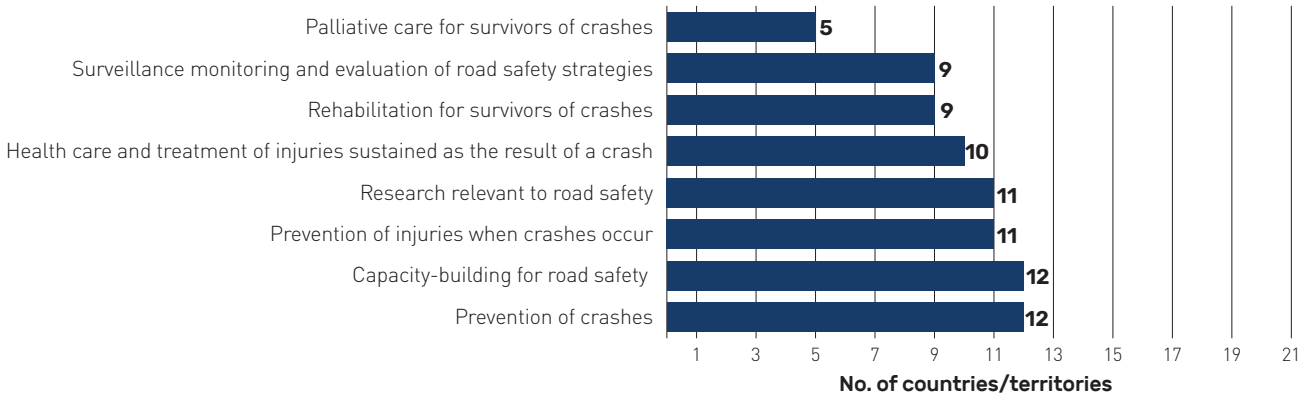
Long-term and sustainable investment is required for the development of safe road interventions that can improve road safety. National governments have the main responsibility for funding road safety activities with sustainable sources such as central government allocations, local government allocations, road user charges, levies on private sector insurance, surplus from government insurance, the use of traffic fines, and social impact bonds. In addition to this long-term funding, short-term funds may be required from multilateral lending institutions, the private sector, international funding agencies and philanthropic contributions, especially

in low- and middle-income countries and territories *(3)*.

Three countries in the Region are fully funded to implement national road safety strategies (Oman, Qatar and United Arab Emirates). Another five countries are partially funded to implement these strategies (Egypt, Islamic Republic of Iran, Morocco, Pakistan and Saudi Arabia).

The findings also show that the number of countries and territories that reported dedicated funding for specific road safety activities ranges from five countries for palliative care to 12 countries and territories for prevention of crashes (Fig. 14). More countries and territories allocate funding for preventive road safety activities than for rehabilitative and palliative care.

Fig. 14. Number of countries and territories with dedicated funding (n=21), by type of road safety activity, 2021



Data on the proportion of regular funding for road safety from government or other sources were reported by seven countries in the Region (Islamic Republic of Iran, Lebanon, Morocco, Pakistan, Qatar, Syrian Arab Republic and United Arab Emirates). Five countries reported that all the regular funding for road safety comes from general government revenue (Islamic Republic of Iran, Lebanon, Pakistan, Qatar and United Arab Emirates). One country reported that all its regular funding is from international donors (Syrian Arab Republic), and in one country motor vehicle insurance constituted 17% of the regular funding (Morocco).

More than 40% of countries and territories raise funds through taxation on vehicle purchase, vehicle insurance, economic sanctions for infractions, taxation on fuel/carburant and taxation on alcoholic beverages. Nine countries use taxation on road use (Afghanistan, Egypt, Iraq, Islamic Republic of Iran, Morocco, Oman, Pakistan, Syrian Arab Republic and Tunisia), and four countries use price subsidies for vehicles (Afghanistan, Morocco, Sudan and Tunisia).

3.2 Monitoring and evaluation

3.2.1 Road traffic data systems

Findings reveal that most of the surveyed elements of the road traffic data systems are present in more than half of countries and territories. The exceptions are data systems for national trauma registries and child restraint use.[7]

Eighteen countries and territories reported the availability of national definitions for deaths, injuries and long-term impairment, but these definitions needed to be reviewed to ensure their alignment with WHO best practices.

7. Surveyed data elements: number of deaths, number of injuries, distribution of deaths by sex, distribution of deaths by age, a vehicle registration system, speed on roads, distribution of deaths by type of road user, civil registration and/or vital statistics systems that define deaths by cause of death, alcohol-impaired driving, seat belt use, motorcycle helmet use, frequency and distribution of trips by modal type, distracted driving, drug-impaired driving, travel modality of children going to school, a national trauma registry and child restraint use.

Countries and territories with a decline in estimated road traffic mortality rate between 2016 and 2021

1. Egypt
2. Jordan
3. Kuwait
4. Lebanon
5. Morocco
6. Occupied Palestinian territory
7. Oman
8. Pakistan
9. Qatar
10. Saudi Arabia
11. Somalia
12. Sudan
13. Tunisia
14. United Arab Emirates

3.2.2 Performance indicators

Implementing national and local action plans should be supported by data and evidence. Countries and territories need to regularly assess the performance of their road safety programmes to inform and improve planning and implementation *(3)*.

Despite the successes achieved by 14 countries and territories in the Region to decrease the estimated road traffic death rates between 2016 and 2021, more efforts are needed to narrow the gap between the reported and estimated rates and achieve the global target of a 50% reduction in deaths and injuries.

Sixteen out of the 21 countries and territories reported investigating the reasons for discrepancies between the country-reported and WHO-estimated road fatalities at the national level, such as through collaborative efforts to share and integrate data from different data sources, consultation with WHO to establish a workplan to address observed data discrepancies, and meetings with different data providers (e.g. police crash data, hospital data, forensic data) (Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Jordan, Kuwait, Libya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Syrian Arab Republic, Tunisia and United Arab Emirates).

Despite the availability of data systems in many of the countries and territories, not all the countries and territories with existing data systems could provide performance data. None of the countries and territories provided data on the use of child restraint systems or rehabilitative and psychological care.

Table 2. Number of countries and territories with available performance indicators, by type of indicator, 2021

Indicator	Number of countries and territories with available data	Range of values
Percentage of vehicles exceeding speed limits	7	(0.03–40)
Estimated percentage of road traffic deaths attributable to speeding	10	(1–54)
Estimated percentage of road traffic deaths attributable to alcohol	8	(0–19)
Percentage of helmet wearing among drivers	6	(0–99)
Percentage of helmet wearing among passengers	5	(0–99)
Percentage of seat-belt use among drivers	8	(47–99)
Percentage of seat-belt use among front seat passengers	4	(5–99)
Percentage of seat-belt use among rear seat passengers	3	(0.5–36)
Data on child restraint systems use	0	-
Percentage of injuries that receive psychological and rehabilitative care	0	-

Conclusion and suggested way forward

While the GSRRS 2023 estimates that the Region still has the equal second-highest road traffic death rate in the world, it identifies several achievements and strengths that can be built on towards further improvement and progress. There was a reduction in the estimated road traffic death rates in 14 countries and territories in the Region between 2016 and 2021, reflecting the magnitude of the efforts undertaken to improve road safety.

The majority of countries and territories have a national road safety lead agency and laws on key risk factors, with a formal driver licensing process, a penalty/demerit system for repeat driving offenders and mandatory motor insurance for all vehicles. Systematic programmes to target investment and upgrade higher-risk locations for any road user type are also available in most countries and territories, along with restrictions on the import and export of used vehicles.

More than 50% of countries and territories have a national road safety strategy to coordinate road safety activities, with recognition of the importance of land use in the technical design and operational standards of roads. A similar proportion of countries and territories have legislation to guarantee rehabilitative medical care to all injured persons and professional development training for all emergency medical services personnel.

New initiatives have also been reported in the Region, such as participating in a new car safety assessment programme, introducing new technologies such as accident emergency call systems, and developing national strategies that have a direct implication for other strategies on road safety.

To ensure continued progress in road safety in the Region, the following priority areas still need to be considered.

1. Multimodal transport and safe road infrastructure:

- Pursuing appropriate land use in technical designs
- Undertaking interventions to improve safety for pedestrians and pedal cyclists
- Improving the technical design of new roads
- Performing maintenance and formal road safety inspections on existing roads
- Ensuring work zone safety

2. Safety of vehicles:

- Applying all United Nations core vehicle safety standards
- Considering the safety of two- and three-wheeled vehicles

3. Driver licensing, training and testing:

- Implementing graduated driver licensing

4. Speed management:

- Aligning the national speed limits law with WHO best-practices criteria

5. Impaired and distracted driving:

- Aligning the national drink-driving law with WHO best-practices criteria
- Referring to specific drugs in national drug-driving laws

6. Use of protective devices:

- Aligning national motorcycle helmet, seat belt and child restraint laws with WHO best-practices criteria
- Considering the safety of e-bikes and three wheelers

7. Post-crash response:

- Adopting eCall or accident emergency call systems to trigger an emergency response
- Further supporting the rehabilitative and psychological care of victims

8. Institutional management:

- Developing or reviewing road safety strategies to align with global and regional best practices
- Mobilizing resources to support the functions of lead agencies
- Strengthening the reporting of fatal and non-fatal injuries
- Improving the monitoring process of road safety performance
- Strengthening research on road safety in the Region

Annex 1. Regional profile

BURDEN		
Estimated fatalities (2021)		125 781
Reported fatalities (2021)		59 773
Reported road traffic crashes resulting in injured individuals (2021)		542 611
Reported injured individuals from traffic crashes (2021)		1 164 658
Reported seriously injured individuals from traffic crashes (2021)		55 331
Average of % of people who incur a long-term impairment because of the crash (2021)		2–10%
Reported fatalities by sex distribution (2021)	Male: 89% Female: 11%	
Reported fatalities by age group distribution (2021)		
Reported fatalities by age group distribution (2021)	0–4 years old	5.4%
	5–14 years old	6.4%
	15–17 years old	6.6%
	18–29 years old	25.5%
	30–44 years old	25.1%
	45–59 years old	14.9%
	60–69 years old	6.9%
	70+ years old	5.6%
	Unknown age	3.6%
Reported fatalities by type of road users (2021)	Pedestrian	29.4%
	Users of bicycles	3%
	Users of motorized personal mobility devices	–
	Users of motorized 2- or 3-wheeled vehicles	17.3%
	Users of motorized 4-wheeled light vehicles	38.8%
	Users of vehicles designed to carry 10 or more people	0.9%
	Users of heavy goods vehicles	2.6%
	Users of other vehicles	7.7%
WHO estimated rate per 100 000 population by income group (2021)	All Region	16
	High income	14
	Low income	24
	Lower middle income	13
	Upper middle income	21

ROAD USER BEHAVIOUR	
Number of countries with speed limit laws aligned with WHO best practice	4/21
Number of countries with targets to reduce speeds nationally	12/21
Number of countries with available types of speed law enforcement	
• Speedometers by police officers	11/21
• Automatic detection systems	11/21
• Speed limiters	11/21
• Infrastructure modifications	11/21
• Geofencing	9/21
• Intelligent speed assistance	4/21
• Law-addressed speed camera	7/21
• Law-addressed speed cameras are signposted	2/21
Number of countries with drink–driving laws aligned with WHO best practice	4/21
Number of countries with available types of drink–driving law enforcement	
• All year-round random (population) breath testing	5/21
• Penalty/demerit points	10/21
• Assessment and rehabilitation	1/21
• Community or public services	1/21
• Alcohol ignition interlock for some drivers	0/21
Number of countries with all fatally and non-fatally injured drivers involved in a road traffic crash tested for their blood alcohol content	1/21
Number of countries with a national drug-driving law	21/21
Number of countries with drug-driving law by drug type	
• Cannabis	14/21
• Cocaine	14/21
• Opiates	14/21
• Amphetamines	14/21
• Methamphetamines	12/21
Number of countries with government-issued rules for mandatory driving time and rest periods for professional drivers	10/21
Number of countries with all fatally and non-fatally injured drivers involved in a road traffic crash tested for their drug content	3/21
Number of countries with a national law that restricts distracted driving	19/21
Number of countries with a law on use of protective devices	
• Motorcycle helmet law aligned with WHO best practice	4/21
• National helmet law for three-wheeled vehicles	9/21
• National helmet law for e-bikes	0/21
• Seat belt law aligned with WHO best practice	9/21
• Child restraint law aligned with WHO best practice	0/21

Number of countries collecting data on indicators on law enforcement	
• Percentage of vehicles exceeding speed limits	7/21
• Estimated percentage of road traffic deaths attributable to speeding	10/21
• Estimated percentage of road traffic deaths attributable to alcohol	8/21
• Percentage of helmet wearing among drivers	6/21
• Percentage of helmet wearing among passengers	5/21
• Percentage of seat belt use among drivers	8/21
• Percentage of seat belt use among front seat passengers	4/21
• Percentage of seat belt use among rear seat passengers	3/21
• Child restraint systems use	0/21
Driver licensing	
Number of countries with a formal driver licensing process for motorized vehicles	21/21
Number of countries in which new drivers are required to hold a learner's permit prior to obtaining a full licence	12/21
Number of countries with a penalty/demerit system for repeat driving offenders	14/21

INSTITUTIONAL FRAMEWORK	
National road safety strategy	
Number of countries with a national strategy that includes multiple short-term action plans with fatality and non-fatal injuries reduction targets	6/21
Number of countries that have national strategies with direct implications for road safety	13/21
Number of countries that have funding to implement their strategy	3/21
Number of countries with specific road safety strategy targets	
• Targets to promote convenient access to public transport	9/21
• Targets to ensure roads travelled meet technical safety standards for all users	8/21
• Targets to promote walking as an alternative to car travel	3/21
• Targets to ensure new vehicles meet United Nations technical safety regulations	10/21
• Targets to ensure rest periods for professional drivers	5/21
• Targets to reduce vehicle speed	12/21
• Targets to decrease distracted driving	8/21
• Targets to prevent alcohol impaired driving	6/21
• Targets to promote use motorcycle helmets	9/21
• Targets to promote use of seat belts	12/21
• Targets to promote use of child restraint systems	7/21
• Targets to improve times between crash and access to professional emergency health care	10/21
Lead agency to coordinate road safety	
Number of countries with allocated funds in the government's budget for the lead agency to conduct its functions	9/21
Number of countries with dedicated funding for all road safety activities	0/21
Number of countries with regular funding for road safety	7/21
Number of countries achieving all functions of the lead agency	5/21

SAFE ROAD INFRASTRUCTURE	
Total paved kilometres (2021)	1 857 641
Total cycle lanes kilometres (2021)	24 764
Number of countries with infrastructure type	
• Technical standards that recognize the importance of land use	13/21
• Convenient access to public transport	9/21
• Infrastructure project formal audits and/or star/safety rating assessment	9/21
• Technical design standards that align with United Nations conventions	8/21
• Conduct formal road safety inspections/assessments considering all road users	6/21
• Participate in global street design guidelines	5/21
• Manage speed to safe system outcomes	9/21
• Conduct safe crossings for pedestrians and cyclists	11/21
• Separate pedestrians and cyclists from vehicular traffic	7/21

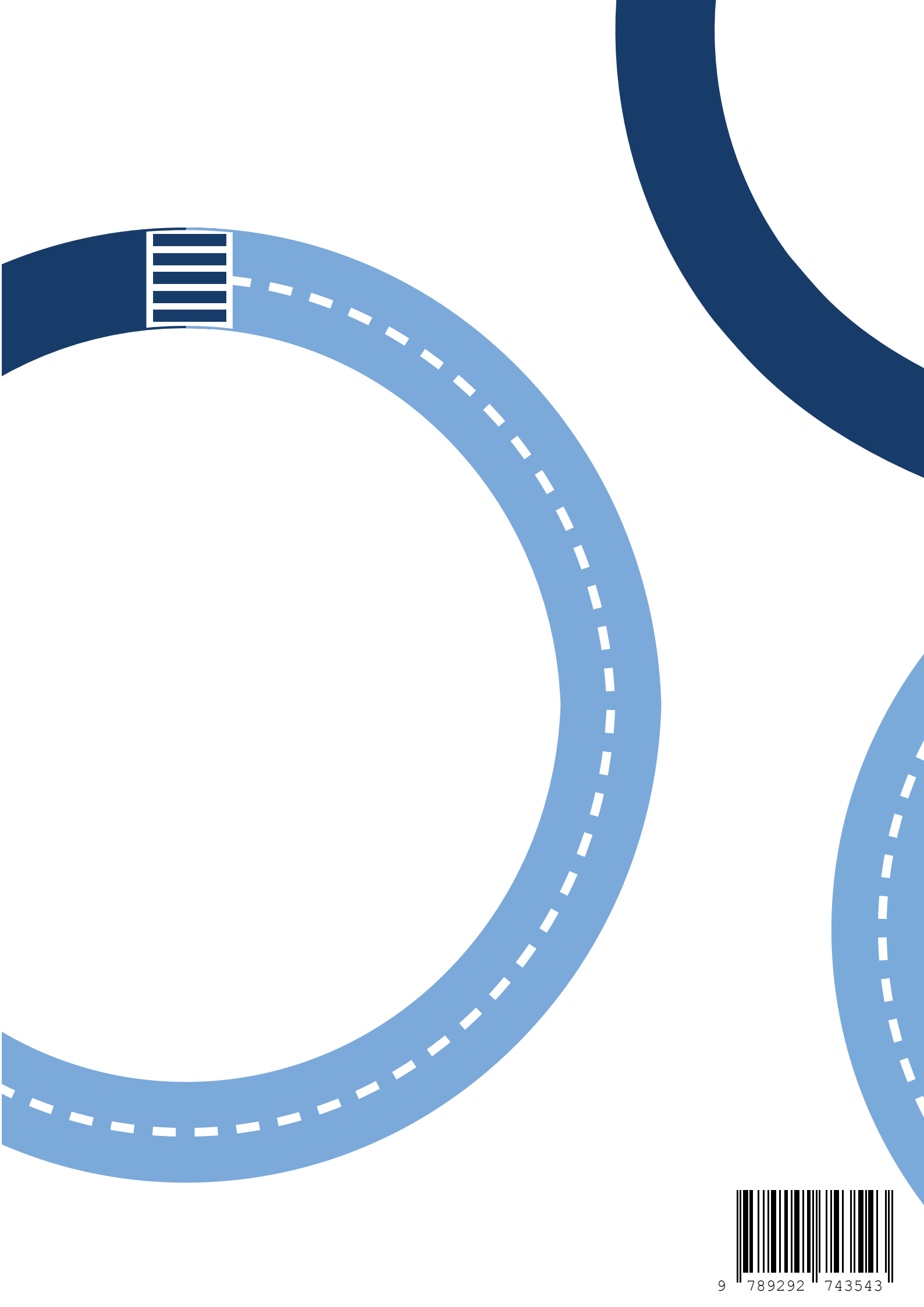
SAFE VEHICLES	
Total number of registered vehicles (2021)	100 900 077
• 4-wheeled vehicles	45%
• Powered 2- and 3-wheelers	44.9%
• Heavy trucks	3.4%
• Buses	0.6%
• Other	5.8%
Number of countries with legislation type	
• Periodic vehicle technical inspection	20/21
• Front and side impact protection	7/21
• Seat belt and seat belt anchorages	7/21
• Electronic stability control	2/21
• Pedestrian protection	3/21
• Anti-lock braking systems	9/21
• Child restraint system	3/21
• Daytime running lights for 2-/3-wheeled vehicles	2/21
• Anti-lock braking system for 2-/3-wheeled vehicles	1/21
Number of countries with restrictions on import and export of used vehicles	18/21
Number of countries that applied to a new car safety assessment programme	12/21

POST-CRASH RESPONSE	
Number of countries with post-crash response type	
• A national law on universal access to emergency care	12/21
• A fully certified specialist or subspecialist programme on trauma surgery that doctors can train for in-country	16/21
• A postgraduate specialization courses for nurses in emergency care or trauma care	14/21
• Legislation mandating the availability of eCall or accident emergency call systems	3/21
• Free access to psychological assistance for road victims or their families	11/21
• Legislation to guarantee rehabilitative medical care to all injured persons	7/21
• 24-hour access – regardless of ability to pay – to operative and critical care services that are staffed and equipped	16/21
• Insurance of motorized vehicles for all types of insurance and for both third-party and occupants of insured vehicles	5/21
• Available data on the percentage distribution of insured vehicles by vehicle type	3/21
• Number of countries with regulated maximum or minimum insurance premiums	7/21
• Number of countries with a fund to cover victims of uninsured or unidentified vehicles	7/21

References[8]

1. Global status report on road safety 2023. Geneva: World Health Organization; 2023 (https://www.who.int/publications/i/item/9789240086517). Licence: CC BY-NC-SA 3.0 IGO.
2. United Nations General Assembly, 74th session, Agenda item 12, 2 September 2020: Improving global road safety. New York: United Nations; 2020 (A/RES/74/299; https://undocs.org/Home/Mobile?FinalSymbol=A%2FRES%2F74%2F299).
3. Global plan for the Decade of Action for Road Safety 2021–2030. Geneva: World Health Organization; 2021 (https://www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030). Licence: CC BY-NC-SA 3.0 IGO.
4. Strategic action framework to strengthen road safety systems in the Eastern Mediterranean Region. Cairo: WHO Regional Office for the Eastern Mediterranean; 2024 (https://iris.who.int/handle/10665/377205). Licence: CC BY-NC-SA 3.0 IGO.
5. Documenting road safety: a guide for governments and lead agencies. Cairo: WHO Regional Office for the Eastern Mediterranean; 2022 (https://iris.who.int/handle/10665/365877). Licence: CC BY-NC-SA 3.0 IGO.
6. Global Designing Cities Initiative. Global street design guide. Global Designing Cities Initiative 2024 (https://globaldesigningcities.org/publication/global-street-design-guide/).
7. Safer Roads and Mobility Project Group. The ten step plan for safer road infrastructure. Geneva: United Nations Road Safety Collaboration; 2020 (https://unece.org/DAM/Road_Safety_Trust_Fund/Projects/20200219-202801-4216-UNRSF_10_STEPS_INFRASTRUCTURE_FINAL.pdf).
8. International Road Assessment Programme. Star rating for designs [website]. iRAP; 2021 (https://irap.org/star-rating-for-designs/).
9. Vehicle safety standards. Geneva: World Health Organization (https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/un-road-safety-week/vehicle-safety-standards-flyer.pdf).
10. Walter Nissler. The 1997 Agreement periodic technical inspection. In: How Road Safety Performance Review can accelerate efficient implementation of UN legal instruments on safe vehicles, Online Geneva, 1–2 October 2020. Geneva: United Nations Economic Commission for Europe; 2020 (https://unece.org/fileadmin/DAM/trans/doc/2020/SafeFITS/SIII_UNECE_WN.pdf).
11. Speed management: a road safety manual for decision-makers and practitioners, second edition. Geneva: Global Road Safety Partnership, International Federation of Red Cross and Red Crescent Societies; 2023 (https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/3146-wbk-speed-mgmt-2nd-edition-131023-electronic.pdf).

8. All references were accessed on 23 August 2024.



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