Status of Road Safety in the Region of the Americas

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Contents

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Eugênia Rodrigues (PAHO) coordinated and supervised the development of this report. Alessandra Senisse (PAHO) served as the regional data coordinator. Data management and statistical analysis were managed by Kacem Iaych (World Health Organization [WHO]), and Joëlle Auert (WHO) was responsible for the legislation data management and analysis. The report was enriched by the expert input provided by Meleckidzedeck Khayesi (WHO), Margie Peden (George Institute for Global Health, United Kingdom), Victor Pavarino (PAHO), Silvana Luciani (PAHO), Nhan Tran (WHO), and Anselm Hennis (PAHO). Other PAHO colleagues who contributed include: Arantxa Cayon, Bola Oyeleye, Elisabet Arribas-Ibar, Mark McClure, Patricia Martin-Albo, and Sonia Ortiz.

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Foreword

Road traffic crashes caused 154,997 deaths in 2016,[1] 1,283 more deaths than in 2013. Despite the increased availability and promotion of information, knowledge, and policy recommendations on road safety, little has changed since the Pan American Health Organization (PAHO) published its previous report on road safety three years ago. The mortality rate from road traffic crashes remains stable (15.9 per 100,000 population in 2013 vs. 15.6 per 100,000 population in 2016). Beyond these preventable tragic deaths, there are many more thousands of people who suffer injuries from road traffic crashes that cause temporary or permanent disabilities. Many of those injured are unable to return to work or school for extended periods, and still others are permanently disabled and will never be able to return to their regular lives. The main victims of road traffic deaths continue to be young men under 29 years of age. The most vulnerable road users continue to be heavily affected: pedestrians, motorcyclists and cyclists. Some 35,000 deaths among motorcyclists occurred in 2016, surpassing the number of pedestrian deaths. This represents an increase in the proportion of motorcycle deaths from 20% in 2013, to 23% in 2016.

One of the reasons for this increase in motorcycle deaths is that the development of urban transport infrastructures in Latin America has not kept pace with the rapid growth of cities and urban populations. This has resulted in limited public transportation options and an alarming lack of safe mobility in many cities. Because motorcycles are among the few affordable options for transportation, the number of motorcycles on the road has increased without the corresponding legislative or regulatory measures to ensure safe use and ideal road conditions.

As we enter this last year of the Decade of Action for Road Safety in which Member States have committed to a target to halve the number of global deaths and injuries from road crashes by 2020, it is a good time to reflect on the road safety situation in the Region of the Americas. This report provides a snapshot of the public health considerations for road safety, and clearly illustrates that this global target will not be achieved given current trends.

The countries of the Americas must continue to scale up multisector road safety measures that include safe roads and infrastructure, public transportation for all, appropriate laws and regulations, and reinforce transportation policies and oversight agencies to ensure proper enforcement to protect all citizens. In its role, PAHO and WHO will continue to work closely with governments and civil society to guarantee advances and to ensure that the Region scales up its efforts. This effort requires convening the various sectors to share experiences and best practices, while regularly measuring and reporting on progress. This report provides an update on ongoing road safety efforts, while functioning as an important tool to guide future work.

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[1] Latest year of available data.

Executive Summary

In the three years since the last road safety report was issued, the number of road traffic deaths has continued to increase throughout the Americas, reaching 154,997 deaths in 2016 (latest year of available data). However, the death rate from road traffic crashes has remained stable (15.6 per 100,000 population in 2016 as compared to 15.9 per 100,000 population in 2013). Data presented in this report show that aspects of road safety management, legislation, and post-crash care have improved in some countries. However, the improvements have been modest and it is clear that the Sustainable Development Goal (SDG) target 3.6, to halve road traffic deaths by 2020, will not be achieved.

At the Regional level, road traffic deaths are the second-leading cause of death among young adults aged 15–29 years, highlighting the need to prioritize road safety, especially in the adolescent health agenda. Furthermore, middle-income countries have the highest rates of road traffic deaths and injuries, with pedestrians, cyclists, and motorcyclists constituting the most vulnerable road users. Vulnerable road users accounted for almost half of all road traffic deaths in the Americas, with motorcyclists being the most affected and accounting for 23% of all road traffic deaths. Between 2013 and 2016, four (Barbados, Canada, Trinidad and Tobago, and Uruguay) of six high-income countries saw a decrease in the number of road traffic deaths, whereas a decrease was observed in only three (Bolivia, Brazil, and the Dominican Republic) of 20 middle-income countries. During this period, the overall number of road traffic deaths increased in 13 middle-income countries[2] as well as in two high-income countries (Chile and USA). No change in road traffic deaths was observed in four middle-income countries (Argentina, Ecuador, Paraguay, and Venezuela).

Since 2014, more countries in the Region have implemented road safety legislation. Two additional countries, the Dominican Republic and Uruguay, established laws on drink-driving based on best practice, bringing the total to eight countries. Ecuador implemented legislation on helmet use (resulting in a total of seven countries), Dominican Republic implemented legislation on seat-belts (19 countries in total), while Chile implemented child restraint laws (two countries in total). However, no new speed laws have been enacted in the Region. Overall, four countries (Chile, Dominican Republic, Ecuador, and Uruguay) have amended their laws regarding one or more road safety risk factors to bring them in line with best practice. Despite these legislative developments, enforcement remains a major challenge in most countries.

Progress is evident in the design of safe roads, with more countries using a star rating tool for road networks, notably the tool from the International Road Assessment Program (iRAP). Eleven countries[3] are carrying out systematic assessments or star ratings on existing roads, and 18 countries[4] are evaluating new roads to guarantee that design standards specifically meet the needs of vulnerable road users. These road assessments are essential to ensure the safe movement of pedestrians, cyclists, and motorcyclists. UN vehicle safety standards, such as the availability of seat-belts and seat-belt anchorages for all car occupants as well as electronic stability control in vehicles, are lacking in most countries. Only six countries (Argentina, Brazil, Canada, Ecuador, United States, and Uruguay) in the Region currently apply two of the six vehicle safety standards.

[2] Belize, Colombia, Costa Rica, Cuba, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Panama, Peru, and Suriname.

[3] Argentina, Barbados, Belize, Bolivia, Canada, Cuba, Ecuador, Grenada, Jamaica, Mexico, and Paraguay.

[4] Antigua and Barbuda, Argentina, Belize, Bolivia, Brazil, Canada, Colombia, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Honduras, Jamaica, Paraguay, Trinidad and Tobago, and Venezuela.

Some improvement has been observed in post-crash care. Eighteen countries employ a single dedicated emergency telephone number, and 14 countries have a formal process to train and certify prehospital care providers. Moreover, 22 countries provide certified specialization or sub-specialization programs for doctors in emergency medicine, while half of the countries (15 countries) provide training programs for trauma surgery. Despite the availability of prehospital care providers, the accessibility and quality of emergency care needs to be improved to better respond to victims of road traffic crashes. Currently, only 15 countries[5] reported having national or subnational trauma registries.

While there has been progress in some countries on road safety measures, the challenge remains to adopt and enforce stronger legislation across the five effective measures (drink-driving, seat-belt use, helmet use, speed limits, motorcycle helmet use, and child restraints), improve vehicle safety standards and road infrastructure, and increase access to quality emergency care.

[5] Barbados, Bolivia, Canada, Chile, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Mexico, Paraguay, Peru, United States, Uruguay, and Venezuela.

Introduction

Road traffic injuries and deaths remain a major public health problem in the Americas, and the current trend of increasing number of road traffic deaths suggests that they will continue to be a significant burden on countries' health systems and development. However, many of these deaths and injuries can be prevented through the implementation of an integrated road safety approach that includes enacting and enforcing legislation related to key risk factors, enforcing safety standards for roads and vehicles, and improving access to prehospital care *(1)*. Additionally, with improvements in road traffic data availability, countries can better assess the risks of road traffic deaths and injuries, as well as prioritize evidence-based road safety interventions and monitor their progress.

The 2010 UN General Assembly Resolution, Improving Global Road Safety (A/RES/64/255), calls for regular monitoring and assessment of the Decade of Action for Road Safety (2010–2020) through the publication of global/regional reports on the state of road safety. Therefore, this Regional edition of the road safety report aims to provide a situation assessment of road safety measures in the Americas and to help identify the gaps in national road safety polices. The report also presents evidence to mobilize key road safety actors, including ministries of health, transport, police, and nongovernmental organizations.

This 2019 edition is the latest in a series of Regional road safety reports published by PAHO (with previous reports published in 2009, 2015, and 2016). Data were collected in 2017–18, using the latest years of available data as follows: mortality data from 2016, legislation data from 2017, road assessment data from 2017, and vehicle standards data from 2018. Backed by these data, the specific objectives of this report are to:

- Examine the current road safety situation in the Region of the Americas;
- Provide an assessment of progress towards the UN goals for road safety;
- Review the status of road safety agencies in the Region;
- Present an analysis of national legislation on key road safety risk factors using best-practice criteria;
- Assess the current state of vehicle standards and road infrastructure; and
- Analyze the progress and challenges in improving post-crash care.

Methods

This report was developed through an iterative and consultative process with participating Member States. Data were collected through a standardized survey in 2017 administered by WHO headquarters and PAHO, with National Data Coordinators (NDCs) appointed by governments to provide country data. The NDCs completed a self-administered questionnaire on the status of the five pillars of the Decade of Action for Road Safety (road safety management, infrastructure, safe vehicles, road user behavior, and post-crash response), consulting road safety experts from relevant sectors in their country.

Based on the reported number of road traffic deaths and the source of data, adjustments were made by WHO to account for potential under-reporting due to differences in definitions as well as limitations in Civil Registration and Vital Statistics in many countries. This was followed by a country consultation to allow Member States to validate the data and respond to any changes that resulted from this process. The estimated number of fatalities is presented along with the statistics reported by countries in the country profiles of the *Global Status Report on Road Safety 2018 (2).*

The following three primary sources of data were used in the development of the report:

1. Data collected in 2017 from the self-administered global road safety survey submitted by the NDC to WHO for 30 of the 35 PAHO Member States[6] that completed the survey;
2. Data collected in 2017 through publicly accessible road safety databases, including the Global New Car Assessment Program, and road inspection data from the International Road Assessment Program; and
3. Global mortality estimates with data from 2016 generated by the WHO Department for Information, Evidence and Research.

Criteria for best-practice legislation have changed since the previous report

The criteria used to determine the best practices on which to base legislation have been updated since the publication of the 2016 Regional report, *Road Safety in the Americas (3)*. The updates include a classification of countries with laws that conform (or not) with best practice and those without laws. Using the updated criteria, legislation from the previous report was retrospectively analyzed, and compared with the analysis of legislation for this report.

[6] The 30 countries that responded to the 2017 global road safety survey: Antigua and Barbuda, Argentina, Barbados, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, St. Lucia, Suriname, Trinidad and Tobago, United States, Uruguay, and Venezuela.

SECTION 1:

State of Road Safety in the Region of the Americas

Key messages

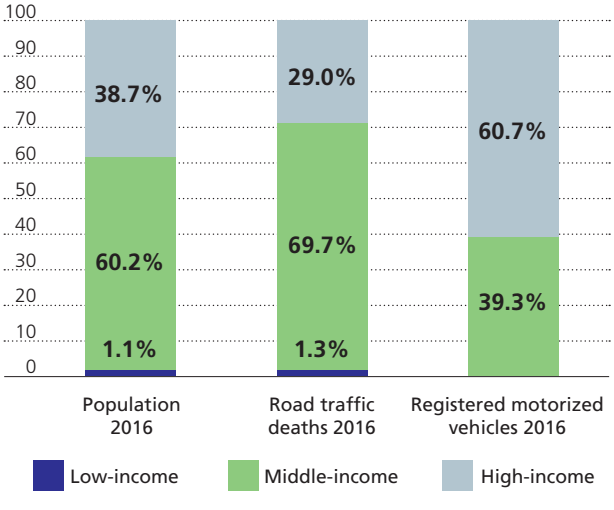
- In the Region of the Americas, there were **154,997 road traffic deaths** in 2016, representing **11%** of road traffic deaths worldwide.
- The Regional road traffic mortality rate is **15.6 per 100,000 population.**
- Wide variation exists in the road traffic mortality rate among countries, ranging from a low of **5.6 per 100,000 population in Barbados** to a high of **35.4 per 100,000 population in Saint Lucia.**
- Road traffic injuries are the **second-leading cause of death** among **young adults 15–29 years old.**
- Almost half of all road traffic deaths are among the most vulnerable road users: **motorcyclists (23%)**, **pedestrians (22%)**, and **cyclists (3%).**
- There has been a **3-percentage point increase** in the proportion of deaths among **motorcyclists** between 2013 and 2016.
- The burden of road traffic deaths is **higher in middle-income countries** than in high-income countries.

Burden of road traffic deaths

The 154,997 road traffic deaths in the Region of the Americas in 2016 represented 11% of the global road traffic deaths. These data make it clear that this Region will not be able to achieve the global Sustainable Development Goal (SDG) target 3.6, which calls for halving the number deaths and injuries from road traffic accidents by 2020.

The burden of these deaths is strongly associated with income level: road traffic deaths are higher in middle-income countries (MICs) than in high-income countries (HICs). The Regional average road traffic death rate in MICs is 18 per 100,000 population, compared to 11.8 per 100,000 population in HICs. Figure 1 shows the proportion of road traffic deaths for MICs and HICs in relation to the proportion of the population and the number of registered motorized vehicles. Only 39.3% of the Region's motor vehicles are in MICs, but 69.7% of the deaths occur in these countries. This finding contradicts the view that death trends are related to the motorization level in the respective country. In addition, the proportion of road traffic deaths to total deaths is higher in MICs than in HICs.

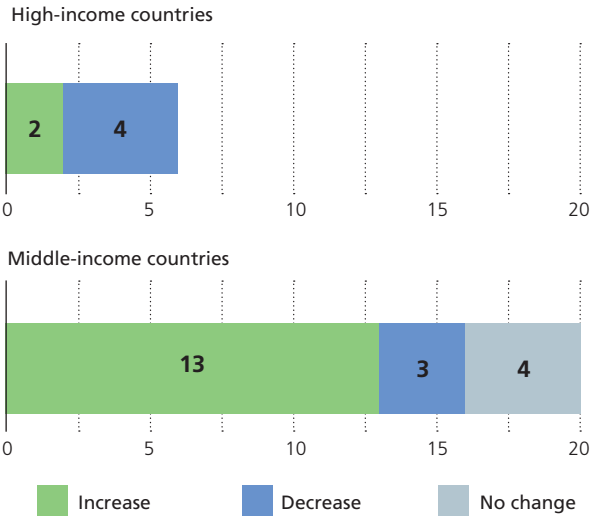
FIGURE 1: Proportion of population, estimated road traffic deaths, and registered vehicles, by country income category*, Region of the Americas, 2016



*Income levels are based on 2017 World Bank classifications.

Figure 2 shows that HICs have made more progress than MICs in reducing road traffic deaths. Reductions in road traffic deaths were observed in four (Barbados, Canada, Trinidad and Tobago, and Uruguay) of the six HICs, while in two countries (Chile and USA) road traffic deaths increased. With regard to the 20 MICs, 3 countries (Bolivia, Brazil, and Dominican Republic) saw a reduction in road traffic deaths, 13 countries[7] experienced an increase in the number of deaths, and in 4 countries (Argentina, Ecuador, Paraguay, and Venezuela) there was no change.

FIGURE 2: Number of countries where a change in road traffic deaths by country income category has been observed since 2013*



* Data represent countries that have seen more than a 2% change in their number of deaths since 2013 and exclude four countries with populations under 200,000 (Antigua and Barbuda, Dominica, Grenada, and St. Lucia). The income categories are based on the 2017 World Bank classification.

In 2016, road traffic injuries were the 10th leading cause of death among all age groups and the second-leading cause among those aged 15–29 years *(4)*. These findings indicate the need to prioritize the prevention of these injuries in this age group. Furthermore, injuries and

[7] Belize, Colombia, Costa Rica, Cuba, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Panama, Peru, and Suriname.

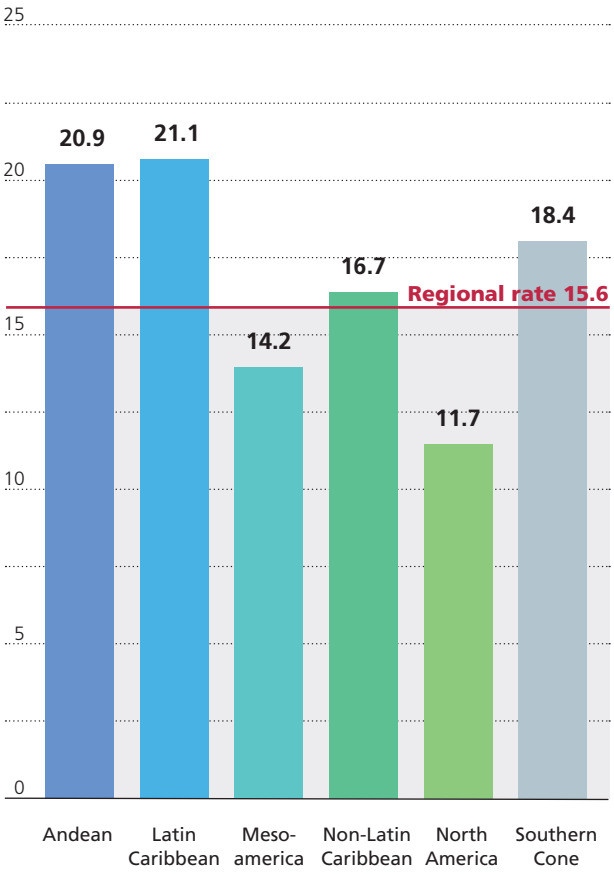
disabilities resulting from road traffic crashes lead to emotional and financial distress and present a burden for health services. In addition, the absence of safe roads limits the options for people to walk, cycle, or use public transportation, thus increasing physical inactivity, which in the turn contributes to other health conditions such as obesity, heart disease, and diabetes.

Road traffic injuries are the 2nd leading cause of deaths among young adults aged 15–29 years.

The road traffic mortality rate in the Region in 2016 in the Region in 2016 was 15.6 per 100,000 population, which is lower than the global rate of 18.2 and second lowest among the six WHO regions.[8] Disparities in road traffic mortality rates are evident between subregions[9] and countries. As shown in Figure 3, in 2016 four subregions had higher death rates than the average Regional rate. The Latin Caribbean and Andean subregions had the highest rates at 21.1 and 20.9 deaths per 100,000 population, respectively, followed by the Southern Cone (18.4) and Non-Latin Caribbean (16.7).

There have been some reductions in the rate of road traffic deaths among subregions between 2013 and 2016. Although this shift is modest, it can be observed in three subregions. Notably, in the Southern Cone, road traffic deaths have fallen from 20.9 per 100,000 population in 2013 to 18.4 per 100,000 population in 2016.

FIGURE 3: Estimated road traffic mortality rate (per 100,000 population), by subregions, Region of the Americas, 2016

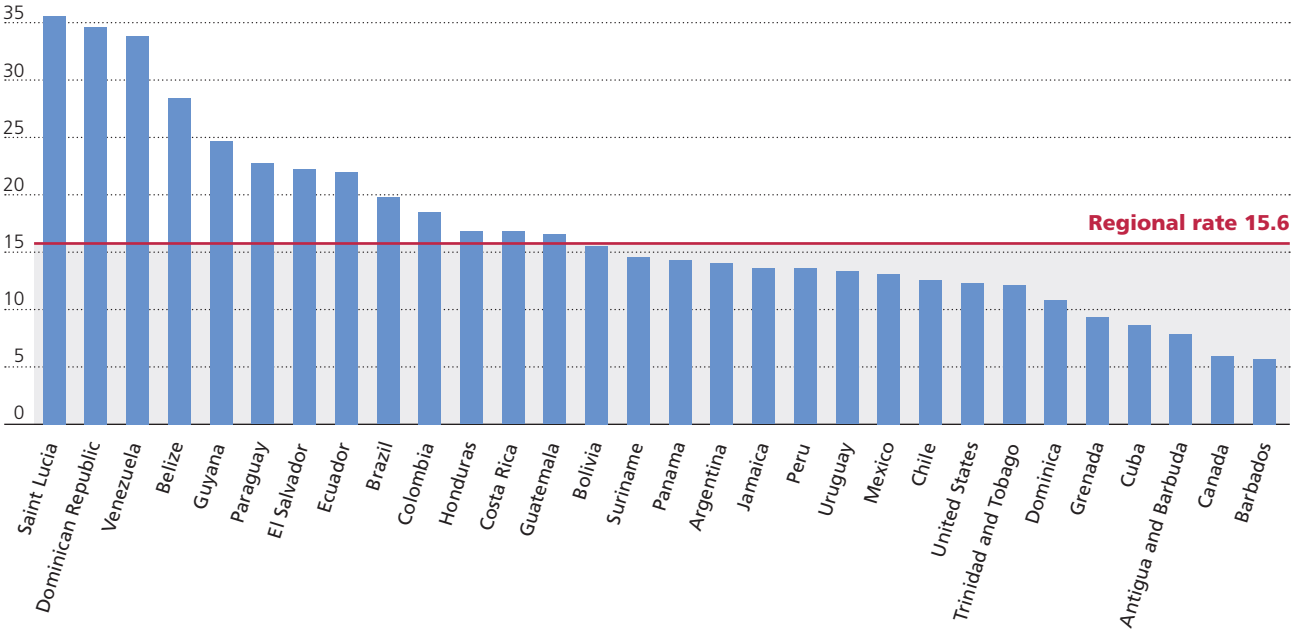


The differences in mortality rates are more striking at the country level. Figure 4 shows that 13 of the responding countries report higher rates than the Regional average. Saint Lucia, the Dominican Republic, and Venezuela have road traffic death rates more than double that of the Regional average (35.4, 34.6, and 33.7 per 100,000 population, respectively). Meanwhile, the rates for Barbados and Canada are less than half the Regional rate, at 5.6 and 5.8 deaths per 100,000 population, respectively.

[8] WHO regions and road traffic death rates per 100,000 population: Europe (9.3); Americas (15.6); Western Pacific (16.9); Eastern Mediterranean (18); South-East Asia (20.7); and Africa (26.6).

[9] Countries responding to the survey, grouped by PAHO subregion: **North America:** Canada, United States; **Latin Caribbean:** Cuba, Dominican Republic; **Non-Latin Caribbean:** Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, Suriname, Trinidad and Tobago; **Southern Cone:** Argentina, Brazil, Chile, Paraguay, Uruguay; **Mesoamerica:** Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Panama; **Andean:** Bolivia, Colombia, Ecuador, Peru, Venezuela.

FIGURE 4: Estimated road traffic mortality rate (per 100,000 population) by country, Region of the Americas, 2016

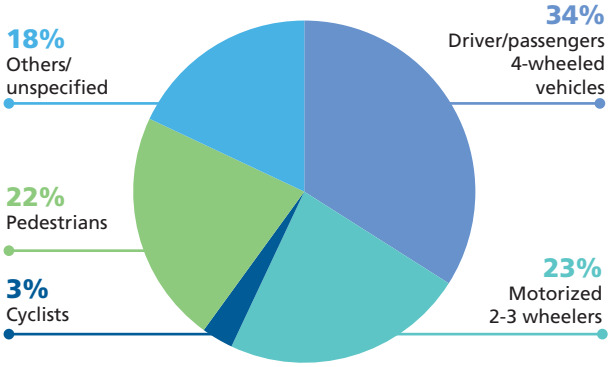


Vulnerable road users (pedestrians, cyclists, and motorcyclists) account for nearly half of all road traffic deaths. Several factors influence their susceptibility. Often, vehicle and road designs prioritize vehicle movement over the safety of pedestrians, cyclists, and motorcyclists *(5, 6)*. Thus, these vulnerable groups are less protected than car occupants and often have no choice but to use unsafe road infrastructure (e.g., lack of separate lanes and pedestrian crossings and inadequate or nonexistent sidewalks).

Figure 5 shows that motorcyclists and pedestrians represent 23% and 22% of road traffic deaths, respectively, with cyclists representing another 3%. In comparing 2013 and 2016 data, the Region witnessed a 3-percentage point increase in motorcyclist deaths, from 20% to 23% of all road traffic deaths.

Almost half of all road traffic deaths are among vulnerable road users: pedestrians, cyclists, and motorcyclists. Motorcyclists and pedestrians account for 23% and 22% of road traffic deaths, respectively.

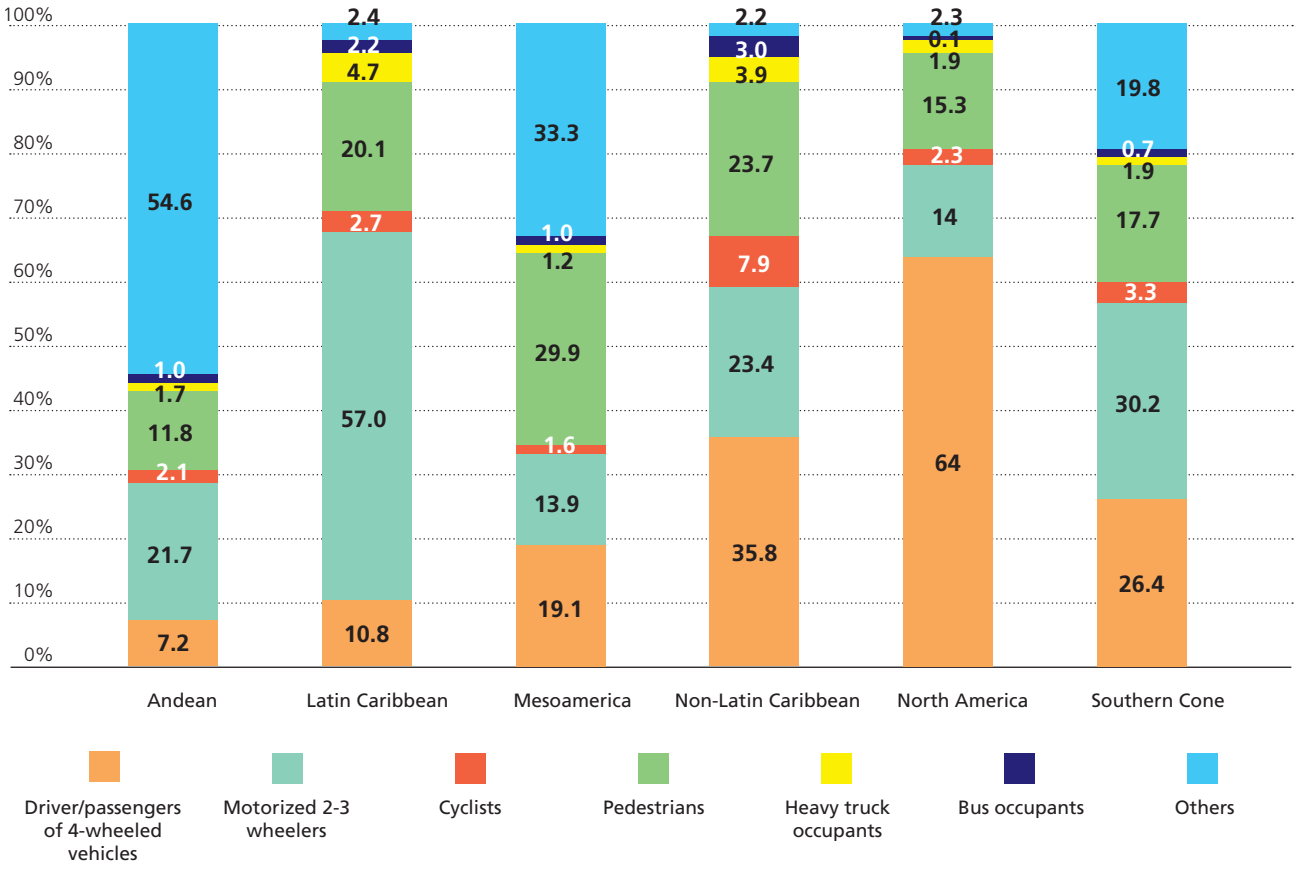
FIGURE 5: Proportion of estimated road traffic deaths, by road user type, Region of the Americas, 2016



The proportion of deaths among vulnerable road users varies across subregions and countries. As seen in Figure 6, the Latin Caribbean and the Southern Cone have the highest proportions of fatal motorcycle collisions, with 57% and 30% deaths, respectively. Conversely, in Mesoamerica and the Non-Latin Caribbean, most road user deaths are among pedestrians, accounting for approximately 30% and 24%, respectively. All subregions have high proportions of vulnerable road users except for North America and the Non-Latin Caribbean, where car occupants represent 64% and 36% of all road traffic deaths, respectively.

The current assessment revealed that insufficient coding of road traffic deaths, by road user type, leads to a large number of deaths classified in the unspecified "other" category. For example, in the Andean subregion, the proportion of the undefined "other" category is 55%. Having a high proportion of the "other" category hinders the ability to prioritize at-risk road users and presents a barrier for the development of interventions and monitoring and evaluating the impact of programs. For more detailed country-level data, the reader should refer to the country profiles section in the *Global Status Report on Road Safety 2018 (2).*

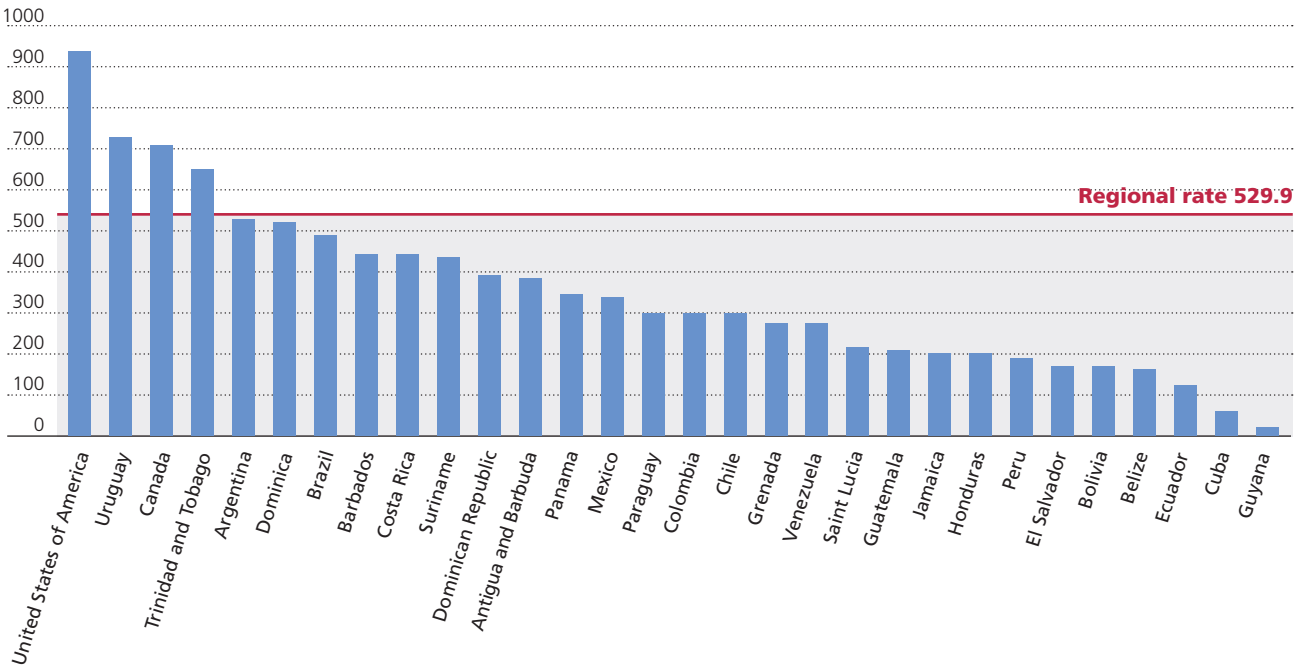
FIGURE 6: Proportion of reported road traffic deaths, by road users and subregions, Region of the Americas, 2016



Motorization in the Americas

In 2016, the registered motor vehicle rate in the Americas was 529.9 per 1,000 population, which represents an increase from the previous Regional report (502.5 per 1,000 population in 2013). The highest motorization rate exists among high-income countries (United States, Uruguay, Canada, and Trinidad and Tobago), while the lowest rates were reported in Guyana and Cuba (see Figure 7). Furthermore, between 2013 and 2016, the number of registered two- and three-wheelers increased by 23%, while 4-wheeled vehicles increased by 8%.

FIGURE 7: Registered vehicle rate (per 1,000 population), by country, Region of the Americas, 2016



SECTION 2:

Institutional Management

Key messages

- **29 out of 30** countries have a stand-alone road safety agency or an agency placed within a government ministry.
- **21** lead road safety agencies have allocated **funds.**
- **28** lead agencies assume responsibility for **coordination across sectors.**
- **27** lead agencies assume responsibility for **enacting and revising legislation.**
- **27** lead agencies assume responsibility for **monitoring and evaluation.**
- **18** countries reported having **national targets** aimed at the reduction of road traffic deaths.

Effective government leadership is needed to be able to successfully improve road safety. This leadership can be achieved at the regional, national, subnational, or local level, and through a stand-alone road safety agency or a unit within a government ministry. An advisory committee or lead agency should coordinate the activities of all government sectors involved in road safety, including health, transportation, education, and the police. Lead agencies with established resources can coordinate and implement road safety interventions, develop strategies with set goals and targets, and mobilize human and financial resources to support action to reduce road traffic fatalities. Furthermore, it is essential to develop regular monitoring and evaluation of the strategy and to determine whether the results are being achieved or if specific modifications are needed.

Among the 30 countries in the Region who responded to the global road safety survey, 29 reported having a stand-alone road safety agency or an agency placed within a ministry; however, only 21 countries indicated they had been allocated funds. Furthermore, data show that 28 lead agencies assume responsibility for coordination, 27 lead agencies for enacting and revising legislation, and 27 lead agencies for monitoring and evaluation.

Twenty-three countries reported having a funded national road safety strategy (5 are fully funded while 18 are only partially funded); the extent of funds used by countries for agencies and strategies was not assessed in this report. Moreover, 18 countries reported having national targets aimed at the reduction of road traffic deaths. Partly due to the role of lead agencies, governments have been able to address the prevention of road traffic injuries and deaths by adapting and implementing international guidelines.

Since the previous data were published, important global developments in support of road safety leadership have taken place. In 2015, as part of the 2030 Agenda for Sustainable Development, the General Assembly adopted the Sustainable Development Goals (SDGs). The inclusion of two specific targets related to road safety (SDG 3.6 and SDG 11.2) confirms and reinforces road safety as a health and development priority in the international agenda. In November 2017, Member States—with the support of WHO, United Nations agencies, the World Bank, and other agencies—reached consensus on a set of 12 voluntary global performance targets for road safety, risk factors, and service delivery mechanisms. These comprehensive voluntary targets aim to guide and monitor the implementation of road safety intervention (national plans, legislation, road infrastructure, vehicle safety, post-crash care) to prevent injuries and deaths *(7)*.

SECTION 3:

Legislation

Key messages

- The enactment, implementation, and enforcement of legislation on the **key risk factors** (speed limits, no use of motorcycle helmet, and no use of seat-belt and child restraint systems) have proven to **be effective in reducing road traffic injuries and fatalities**.
- **21 countries** have laws that meet best practice for at least **one of five key risk factors.**
- **5 countries** have **speed laws** that align with best practice.
- **8 countries** have **drink-driving laws** that align with best practice.
- **7 countries** have **helmet laws** that align with best practice.
- **19 countries** have **seat-belt laws** that align with best practice.
- **2 countries** have **child restraint laws** that align with best practice.

This section reviews countries' current legislation to meet five key behavioral risk factors for road traffic injuries: speed, drink-driving, and failure to use motorcycle helmets, seat-belts, and child restraints.

Legislation based on evidence and paired with strong enforcement and public awareness through media campaigns has proven to be a cost-effective measure that positively changes the behavior of road users. Enacting road safety legislation requires a multisectoral approach. Thus, the cooperation and collaboration among different sectors (including but not limited to public health, transport, police, civil society, nongovernmental organizations) is needed, as each play an important role in raising awareness and the implementation of legislations *(8)*.

This section reviews legislation on five key risk factors from countries against best-practice criteria to identify the gaps and opportunities to improve road safety laws. In total, 21 countries, representing more than 626 million people, have laws meeting the best practice for at least one of five key risk factors. Table 1 shows that nine countries (Barbados, Bolivia, Dominica, Honduras, Mexico, Panama, Peru, Suriname, and Venezuela) have laws meeting best practice for one risk factor; seven countries (Argentina, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, and Jamaica) for two risk factors; two countries (Brazil and Chile) meet the criteria for three risk factors; and three countries (Canada, Paraguay, and Uruguay) meet the criteria for four risk factors. No country in the Region meets the best-practice criteria for all five risk factors.

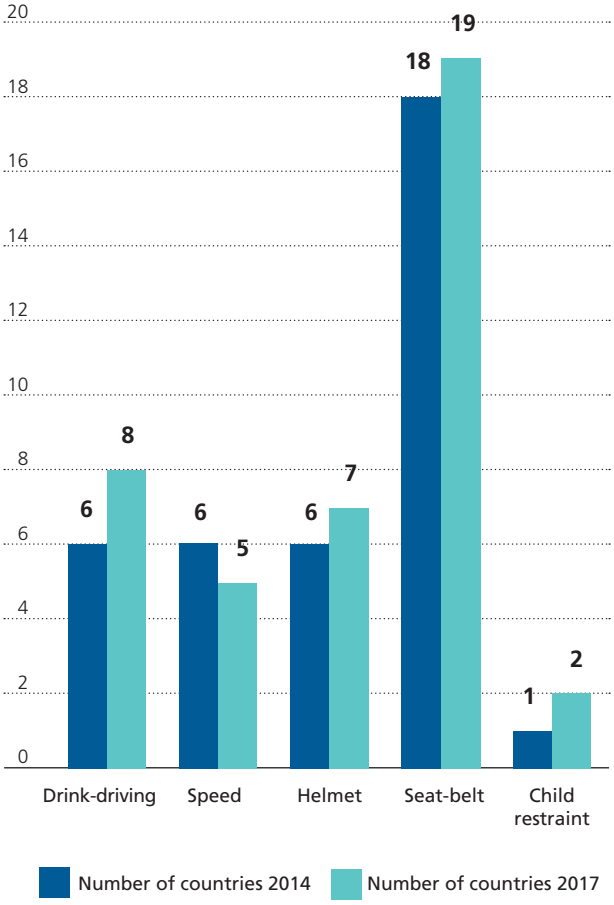
TABLE 1: Number of countries and population covered by laws meeting best practice, 2017

Number of risk factors covered by laws	Number of countries	Total population covered
1 risk factor	9	215,834,219
2 risk factors	7	138,749,322
3 risk factors	2	225,562,618
4 risk factors	3	46,459,138
5 risk factors	0	—
Total	**21**	**626,605,297**

Since 2014, three countries have strengthened their laws on one or more risk factors, specifically on drink-driving and helmet use. Figure 8 shows the number of countries aligned with the best practice as of 2017 compared to 2014.

Only 20 of the 30 countries rate the enforcement of their legislation as "good" (eight or above on a scale of zero to ten, as rated by respondents) for one or more risk factors.

FIGURE 8: Countries with laws meeting best-practice criteria on five risk factors, Region of the Americas, 2014 and 2017



Speed

The speed at which a vehicle travels directly influences the risk of a crash as well as the severity of injuries and the likelihood of death resulting from that crash *(9)*. Effective speed management must be part of an integrated approach considering all the related factors: the protective quality of roads, roadsides, vehicles, and human tolerance thresholds for death and serious injuries *(1)*. As the following data illustrate, speed is a leading factor in the cause and severity of motor vehicle deaths and injuries:

- A 1% increase in mean speed produces a 4% increase in the risk of fatal crash and 3% increase in serious crash risk *(10)*;
- A 5% cut in average speed results in a 30% reduction in road traffic fatalities *(11)*;
- Risk of death for pedestrians struck by cars increases 4.5 times from 50 km/h to 65 km/h *(12)*; and
- Car occupants have an 85% higher risk of dying in car-to-car impacts at or above 65 km/h *(13)*.

This report provides an assessment of speed legislation in the Region, based on the following three best-practice criteria:

- The presence of a national speed limit law;
- A maximum speed limit of 50 km/h on urban roads; and
- The ability of local authorities to modify national speed limits (to adapt to different contexts).

In the Region, 93% of countries have in place legislation limiting speed. Fifteen countries have an urban speed limit set at 50 km/h or lower, and 13 countries allow local authorities to modify the national speed limit in certain situations. However, only five countries[10] (covering 19% of the Region's population) meet all three best-practice criteria on speed legislation (see Figure 9).

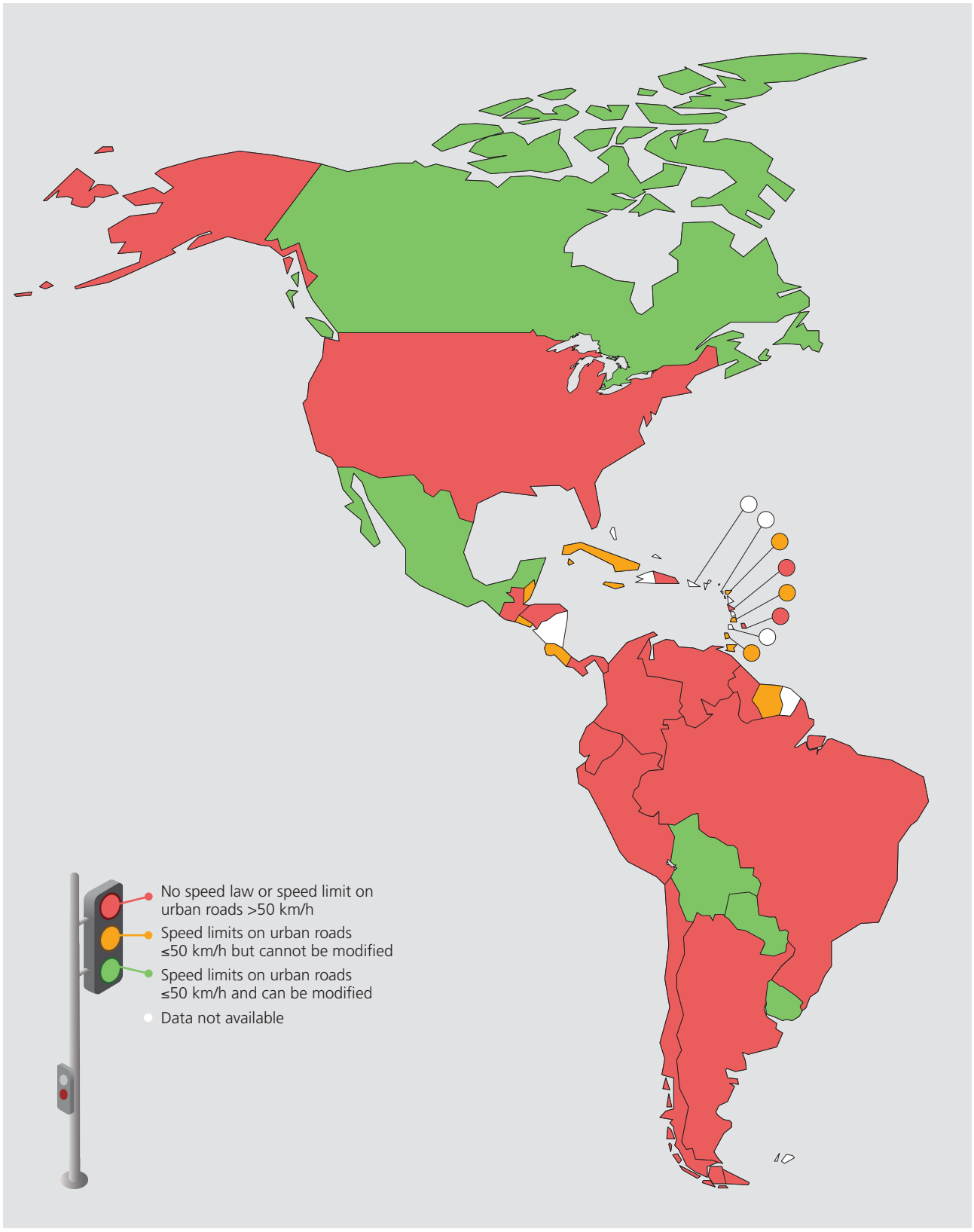
Enforcement of speed limit legislation can be achieved through a combination of manual and automated (fixed camera, hand-held camera, and mobile camera) devices, the latter being the most cost-effective *(14, 15)*. Twenty-eight countries reported having conducting speed enforcement activities, of which only Brazil indicated the use of automated devices. Nonetheless, no country rated their enforcement of speed laws as "good" (eight or above on a scale of zero to ten).

Only five countries in the Americas follow the best-practice criteria for speed laws:

- National law in place implementing maximum speed limit of 50 km/h on urban roads; and
- Local authorities have the ability to modify national speed limits.

[10] Countries aligned with best-practice criteria on speed legislation: Bolivia, Canada, Mexico, Paraguay, and Uruguay.

FIGURE 9: Countries in the Region of the Americas with speed laws meeting best practice, 2017



Drink-Driving

Driving after drinking alcohol (termed drink-driving) significantly increases the risk of a crash and the severity of that crash *(16)*. Even the smallest amount of alcohol has been shown to impair driving behavior, and there is a rapid exponential increase in risk for levels exceeding 0.05 g/dl for the general driving population. Reducing blood alcohol concentrations (BAC) from 0.1 g/dl to 0.05 g/dl may contribute to a reduction of 6%–18% in alcohol-related road traffic fatalities *(17)*. Best practice dictates to set BAC limits of 0.02 g/dl for young and novice drivers due to their greater susceptibility to impairment by alcohol at lower levels and their disproportionately higher risk of being involved in fatal crashes.

The assessment of drink-driving legislation in based on the following best-practice criteria:

- The presence of a national drink-driving law;
- A BAC limit of ≤0.05 g/dl for the general population; and
- A BAC limit of ≤0.02 g/dl for young/novice drivers.

All 30 countries assessed in this report have a drink-driving law in place, but only 16 have a BAC limit of ≤0.05 g/dl for the general population and just eight countries have a BAC limit of ≤0.02 g/dl for young and novice drivers. It is important to note that five countries[11] in the Region have a zero BAC limit for young and novice drivers.

As shown in Figure 10, during the three-year gap between this report and the previous edition, two countries (Dominican Republic and Uruguay) have adopted new BAC limit regulations. This represents an increase in the number of countries aligned with all three best-practice criteria to a total of eight countries[12] (covering 34% of the Region's population). The Dominican Republic developed and approved a new national law at the beginning of 2017, the first time a drink-driving regulation based on BAC limit was included in national legislation. In 2015, Uruguay amended traffic laws to lower the BAC limit for general population and young/novice drivers from 0.03 g/dl to 0.0 g/dl, making them the third country in the Region mandating zero BAC[13] levels for both general population and young/novice drivers.

Only eight countries in the Americas follow the best-practice criteria for drink-driving laws:

- National law in place based on a blood alcohol concentration (BAC) or equivalent of ≤0.05 g/dl for general population; and
- BAC limit of ≤0.02 g/dl for young/novice drivers.

Enforcement that incorporates random breath testing strategies (as opposed to those that are targeted during certain times and in certain areas) is more effective in increasing the perception and actual probability of being caught, thus deterring drink-driving *(18)*. In the Region, 21 countries reported enforcing drink-driving laws through year-round random breath testing. Additionally, the survey conducted found that three participating countries (Canada, Honduras, and Uruguay) rated their enforcement of drink-driving law as "good" (eight or above on a scale of zero to ten).

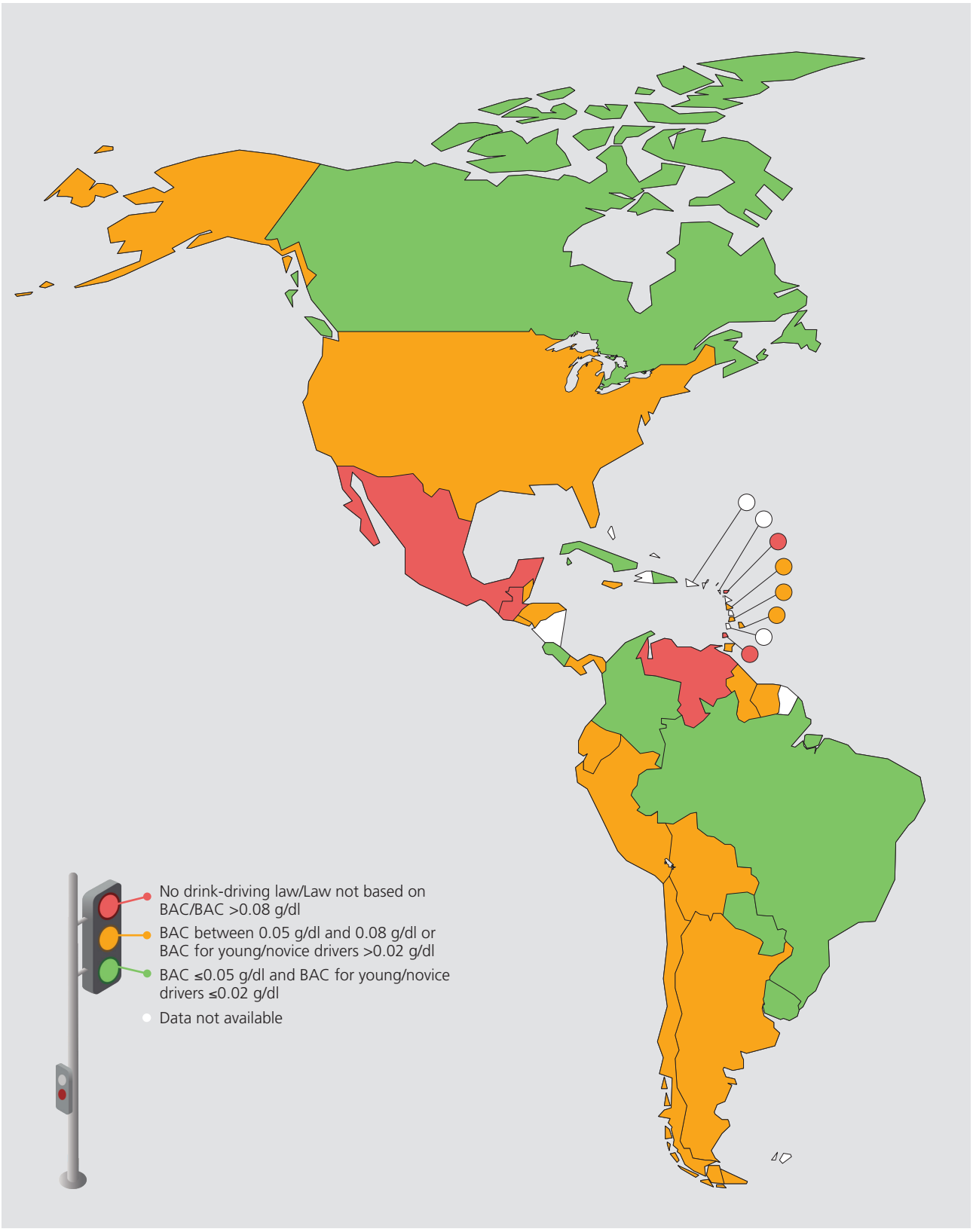
More data on drink-driving are needed to assess the status on alcohol-related traffic deaths and serious injuries as well as to evaluate the impact of preventive measures. In the Region, these specific data are limited, as only 13 participating countries have data on alcohol-related traffic fatalities, 16 countries reported that fatally injured drivers are tested for alcohol, and six reported testing injured drivers for alcohol content.

[11] Countries with zero BAC levels for young and novice drivers are Brazil, Cuba, Dominican Republic, Paraguay, Uruguay.

[12] Countries aligned with best-practice criteria on drink-driving laws are Brazil, Canada, Colombia, Costa Rica, Cuba, Dominican Republic, Paraguay, and Uruguay.

[13] Countries with zero BAC levels for driving (both categories: general population and young/novice drivers): Brazil, Paraguay, and Uruguay.

FIGURE 10: Countries in the Region of the Americas with drink-driving laws meeting best practice, 2017



Motorcycle helmet use

Data collected for this report show that between 2013 and 2016, the number of registered two- and three-wheeled vehicles increased by 23% in the Region, and in five countries (Colombia, Dominican Republican, Paraguay, Peru and Uruguay) the motorcycle fleet surpassed the car fleet.

Two- and three-wheeled motor vehicle users are among the most vulnerable, as they are less visible and less protected than any other motorized vehicle; furthermore, the leading cause of death and major trauma among these users is head injuries *(19)*. Among the risk factors associated with the high mortality rate among motorcyclists are shared roads with faster and heavier vehicles (mixed traffic), lack of proper road infrastructure, and lack of proper helmet and speed legislation and enforcement.

Proper use of helmets has been shown to reduce the risk of fatal injuries by 42% and reduce the risk of head injury by 69% *(20)*. Therefore, enacting and enforcing helmet use by all occupants accompanied by public awareness campaigns have been shown to be cost-effective measures to prevent and reduce injuries and deaths among two- and three-wheeled motor vehicle users. Moreover, helmets designed according to recognized national or international safety standards provide a full range of protection *(21, 22)*.

For the assessment of helmet laws, the following five best-practice criteria were considered:

- Presence of a national motorcycle helmet law;
- Law applies to all occupants (drivers and passengers);
- Law applies to all road types and engine types;
- Law specifies that helmets must always be properly fastened; and
- Law refers to a national or international standard.

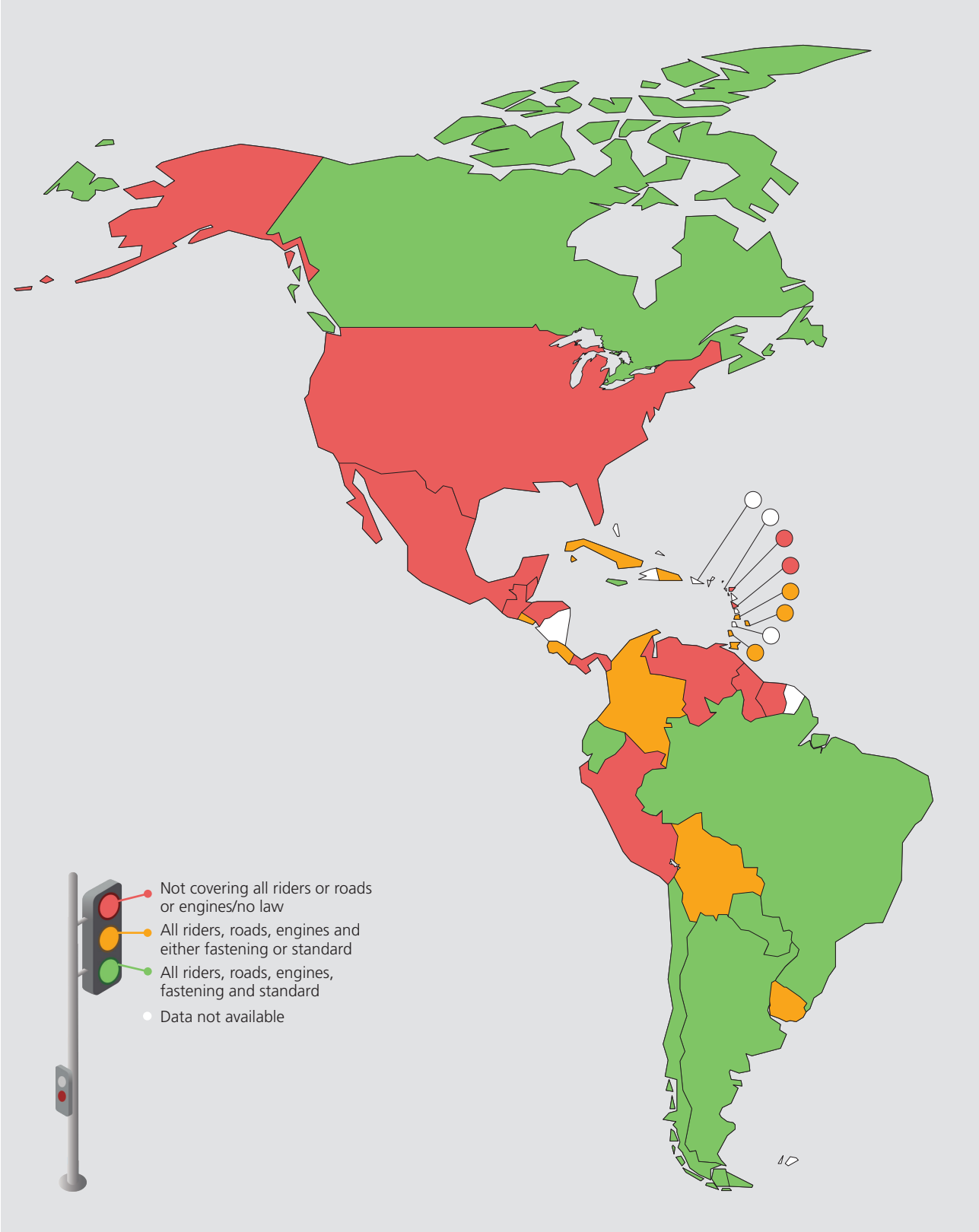
As shown in Figure 11, 25 countries in the Americas have a helmet law that applies to drivers and adult passengers, on all road types and all engine types; 11 countries require helmets to be fastened; and 18 countries require adherence to a national or international standard. This assessment found that seven countries[14] (representing 34% of the Region's population) align with best-practice criteria on helmet law. However, as for the enforcement of these laws, just six countries rated their helmet enforcement as "good" (eight or higher on a scale of zero to ten).

Only seven countries in the Americas follow the best-practice criteria for helmet legislation:

- Presence of a national motorcycle helmet law;
- Law applying to both drivers and passengers;
- Law applying to all road and engine types;
- Law specifying that helmets should be fastened; and
- Law referring to/specifying a standard for helmets.

[14] Countries aligned with best-practice criteria on motorcycle helmet law: Argentina, Brazil, Canada, Chile, Ecuador, Jamaica, and Paraguay.

FIGURE 11: Countries in the Region of the Americas with helmet laws meeting best practice, 2017



Seat-belt use

Wearing a seat-belt reduces the risk of death among drivers and front seat occupants by 45%–50% and the risk of death and serious injuries among rear seat passengers by 25% *(16)*. Mandatory seat-belt legislation is highly effective in promoting seat-belt use and is a cost-effective means of reducing road traffic deaths and injuries, especially in rapidly motorizing low- and middle-income countries *(23)*. As is the case for other risk factors, increasing seat-belt use requires multisectoral action beyond the passing of appropriate legislation. This effort combines publicity and enforcement and the provision of in-vehicle seat-belt reminders, which have been shown to be highly effective in increasing use *(24)*. The following two best-practice criteria were used to analyze seat-belt legislation:

- Presence of a national seat-belt law; and
- Law applies to all occupants (front and rear passengers).

The legislative analysis found that even though 28 countries in the Region have seat-belt laws in place, only 19 countries[15] are aligned with the best-practice criteria by requiring compulsory use of seat-belts among all car occupants (driver, front, and rear passengers). Figure 12 shows that 50% of the Region's population follow the best practice on seat-belt laws.

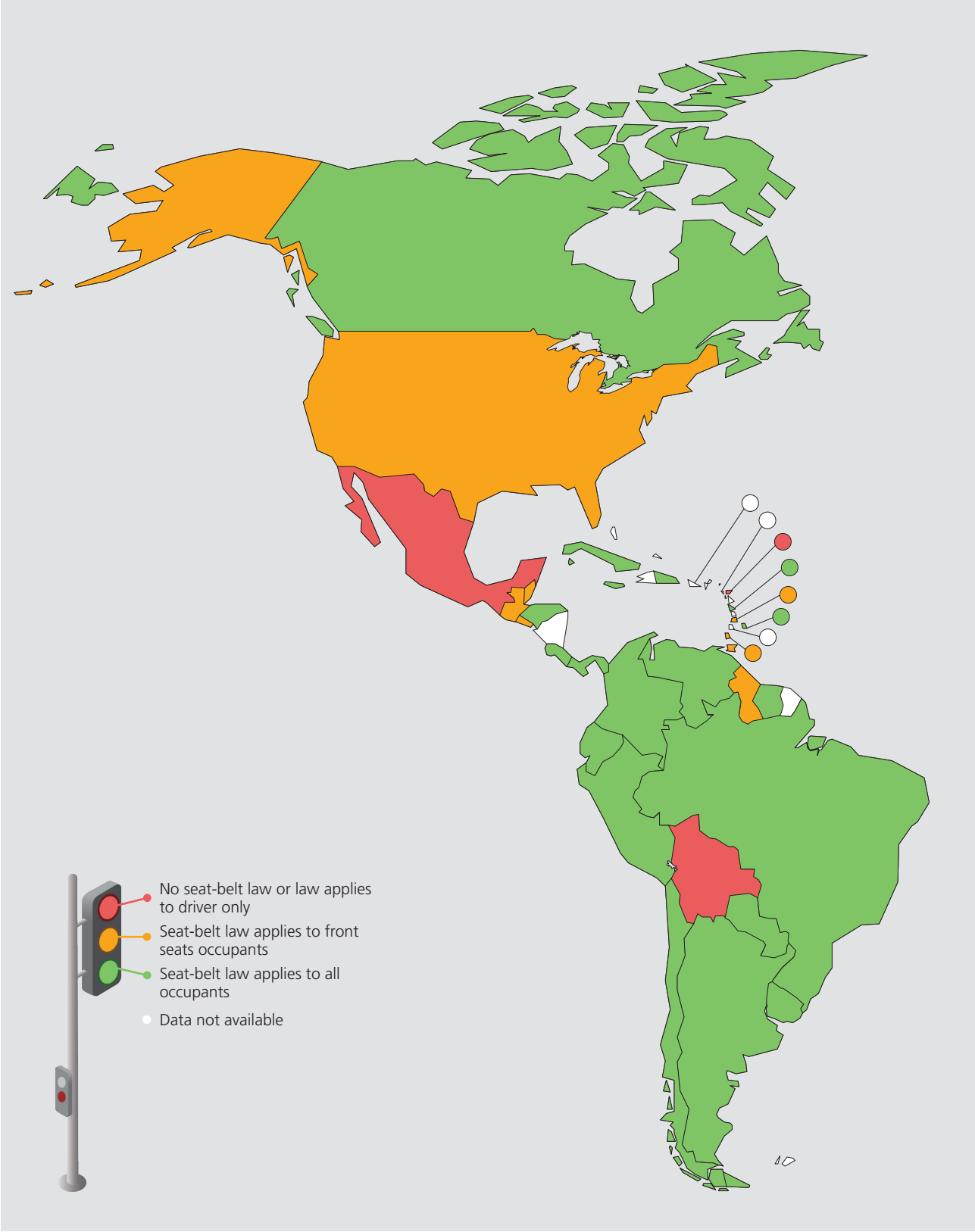
Nineteen countries in the Americas follow the best-practice criteria on seat-belt legislation:

- Presence of a national seat-belt law;
- Law applying to front and rear seat occupants; and
- Front seat and rear seat passengers (all car occupants)

At the Regional level, the average seat-belt enforcement is rated as 6. Only five countries rated the seat-belt law enforcement as "good" (eight or above on a scale of zero to ten).

[15] Countries aligned with best-practice criteria on seat-belt laws: Argentina, Barbados, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, Honduras, Jamaica, Panama, Paraguay, Peru, Suriname, Uruguay, and Venezuela.

FIGURE 12: Countries in the Region of the Americas with seat-belt laws meeting best practice, 2017



Child restraint use

Use of a child restraint has been shown to lead to at least 60% reduction in deaths *(25)*. The benefits of child restraints have been shown to be greatest for younger children, particularly those under 4 years of age. For children 8–12 years, use of a booster seat has been associated with a 19% reduction in the odds of injury compared to using a seat-belt alone *(26)*. Placing children in the rear seats is also important as a higher risk for injury is associated with the front seat position *(27)*.

The best-practice criteria for child restraints have strengthened since the previous report. The following four criteria were considered:

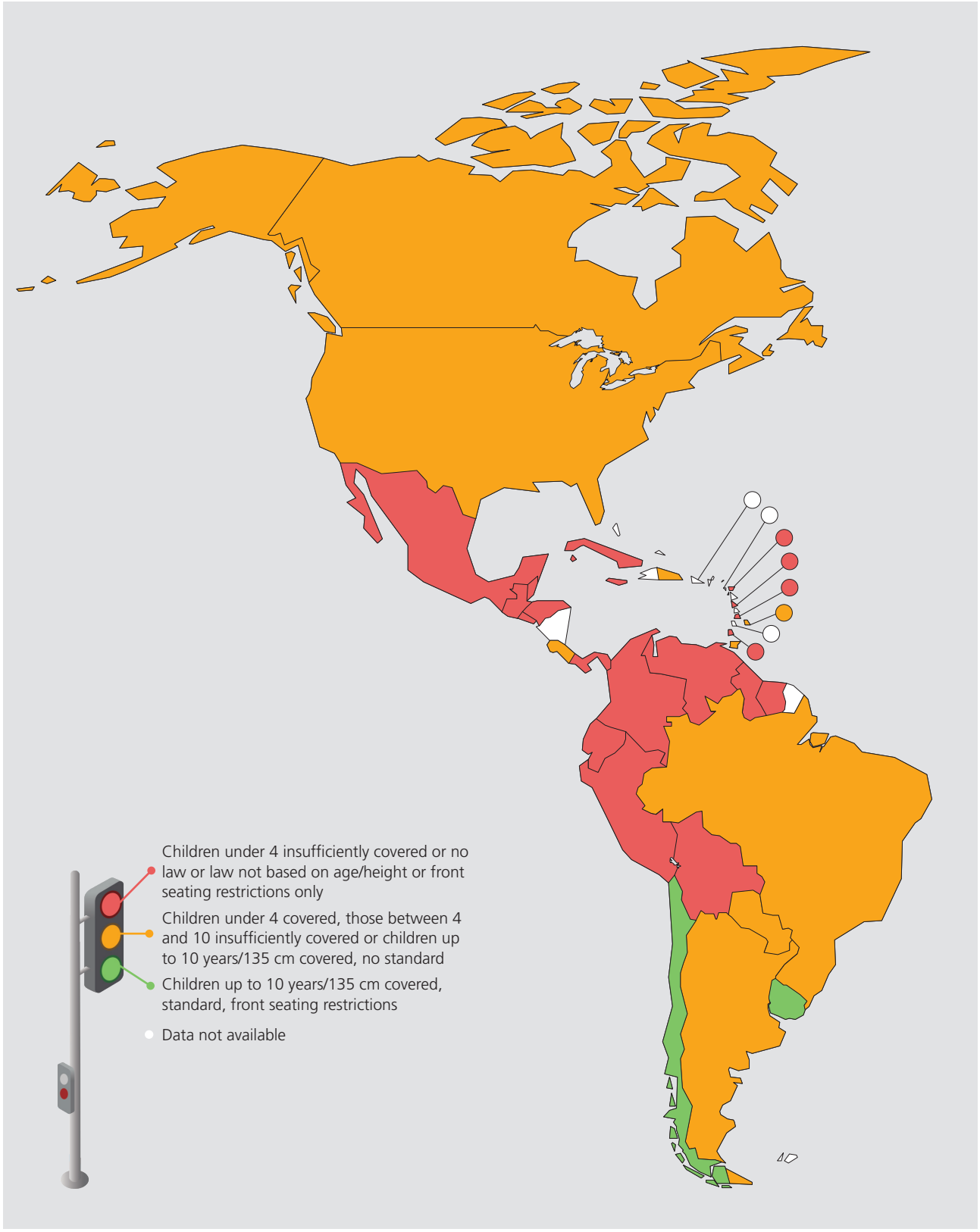
- Presence of a national child restraint law;
- Requirement for children to use a child restraint at least until 10 years old or 135 cm in height;
- Restriction for children under a certain age or height from sitting in the front seat; and
- Reference to or specification of a standard for child restraints.

Figure 13 shows that only two countries (Chile and Uruguay) meet all four best-practice criteria for child restraints. As for law enforcement, only only Canada rated their enforcement of child restraint as "good" (eight or above on a scale of zero to ten), and just 10 countries collect data on child restraint use.

Only 2 countries in the Americas follow the best-practice criteria for child restraint laws:

- Presence of a national child restraint law;
- Requirement for children to use a child restraint at least until 10 years old or 135 cm in height;
- Restriction for children under a certain age or height from sitting in the front seat; and
- Reference to or specification of a standard for child restraints.

FIGURE 13: Countries in the Region of the Americas with child restraint laws meeting best practice, 2017



Other risk factors

Distracted driving

Distracted driving, whether due to mobile devices and/or in-vehicle devices, is a growing risk factor among all drivers, and especially for young and novice drivers *(28, 29)*. Evidence shows that talking on a telephone while driving (hand-held or hands-free) increases the probability of being involved in a crash by four times. This risk increases to approximately 23 times for texting while driving *(30)*. Furthermore, a driver's reaction time is twice as slow when using a telephone, and drivers are more impaired by telephone conversations on their mobile phones than listening to the radio or talking to a passenger in the vehicle *(31, 32)*.

Although the risks associated with distracted driving are well known, there is not enough evidence on the effectiveness of legislation to establish best-practice criteria that limit or prevent mobile phone use while driving. In the Region, 21 countries prohibit the use of hand-held phones while driving and 7 countries prohibit hands-free mobile use. Insufficient data exist regarding law enforcement and compliance to the law, as only six countries routinely collect data on mobile use while driving through regular police crash reports.

Drug-driving

Like drink-driving, driving under the influence of illegal drugs and certain prescribed medications (drug-driving) significantly increases the probability of being involved in a road traffic crash or fatality *(33)*. Impairment due to psychoactive drug use is an important and growing factor influencing the risk of a road traffic crash among drivers, cyclists, and pedestrians. Irrespective of the psychoactive drug consumed, the reaction time, information processing, perceptual-motor coordination, motor performance, attention, road tracking, and vehicle control are all affected *(34)*.
The concomitant use of alcohol and drugs is particularly problematic. While the increased risks of drug-driving are widely accepted, there is insufficient evidence on the effectiveness of legislation to limit or prohibit drug-driving to establish best-practice criteria. Although every participating country has a national law in place that prohibits drug-driving, only five countries (Cuba, Honduras, Panama, Uruguay, and Venezuela) report conducting drug testing on all fatally injured drivers.

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SECTION 4:

Safer Roads and Safer Vehicles

Key messages

- **26** countries have national road design standards for **pedestrian/cyclist safety.**
- **18** countries reported carrying out road **safety audits or star ratings** for new roads.
- **11** countries reported use of **systematic assessments or star ratings** on existing roads.
- **11** countries reported having a systematic program to **target investment and upgrade of high-risk locations** on existing roads.
- **22** countries reported **investing in urban public transport.**
- **6** countries apply **2–6 vehicle safety standards.**

Evidence shows that the planning and design of road infrastructure are crucial to ensure overall improvement of road safety. Vulnerable road users, including pedestrians, cyclists, and motorcyclists, must be prioritized when designing road infrastructure to best assure their safe mobility. For pedestrians, the lack of footpaths or safe crossings increases the risk of death and injury; moreover, the lack of specific lanes for cyclists and motorcyclists renders them unprotected and vulnerable *(35)*. In total, 26 countries have national road design standards for the safety of pedestrians/cyclists, which include standards for the management of speed; for separating these vulnerable road users from vehicular traffic; and for safe crossing for pedestrians and cyclists.

Road safety inspections and star ratings can identify deficiencies in road infrastructure. Road protection scores assess the level of protection afforded by the road environment against risk of death and serious injury in collisions for the main user groups. Assessments can be carried out for new and existing roads through national or international road assessment programs such as the International Road Assessment Program (iRAP[16]). iRAP evaluates roads using a star rating system from one star (least safe roads) to five stars (safest roads).

In the Region, 18 countries reported carrying out road safety audits or star ratings for new roads, and 11 countries used systematic assessments or star ratings on existing roads. In addition to road inspections, countries must invest in upgrading high-risk roads, as more than half of all road deaths and severe injuries occur on less than 10% of the available road length *(36)*. Eleven countries reported having systematic programs to target investment and upgrade of high-risk locations on existing roads. Additionally, in order to ensure sustainable mobility, countries should provide safe and affordable public transportation. In the Americas, 22 countries reported investing in urban public transport.

In addition to road assessment, vehicle safety features such as electronic stability control and pedestrian protection can help in preventing road traffic crashes, deaths, and injuries. The United Nations prioritizes eight vehicle safety standards[17] for implementation by countries. In the Region, 6 countries apply two to six vehicle safety standards and 24 countries have implemented zero to one vehicle safety standards. As for motorcycle anti-lock braking systems (ABS), Brazil is the only country requiring ABS, although only for new motorcycles with 300cc engines or greater. To improve car safety, the UN General Assembly recommends the implementation of the New Car Assessment Program (NCAP), a rating program for crashworthiness and crash avoidance that promotes the protection of car occupants and pedestrians by raising awareness on the importance of road safety measures *(37, 38)*.

[16] More details on the full model for all road users and more rural and urban examples can be found at https://www.irap.org//3-star-or-better/what-is-star-rating.

[17] Refer to Box 9 in the *Global Status Report on Road Safety 2018 (2)* for more information on the priority UN vehicle safety standards.

SECTION 5:

Post-Crash Care

Key messages

- **18** countries have a **single emergency care access number** with full national coverage.
- **14** countries provide formal government-ratified certification pathway for **prehospital providers.**
- **22** countries provide certified specialization/ sub-specialization **programs** for **doctors on emergency medicine.**
- **15** countries provide certified specialization/ sub-specialization **programs** for **doctors on trauma surgery.**
- **17** countries provide a **specialization** in emergency care or trauma care for nurses.
- **15** countries have national or subnational **trauma registries in place.**
- **5** countries have an assessment for **emergency care systems.**

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Road traffic injuries have an enormous impact on the victim's quality of life, including possible disability and developing psychological trauma. These effects can be minimized by providing an integrated approach to help survivors regain independence and improve their quality of life *(39, 40)*. Through emergency care systems, countries deliver post-crash response to those affected by road traffic injuries. Emergency care implements a series of time-sensitive actions, beginning with the activation of this system through a dedicated emergency telephone number, and continuing with on-scene care and transport of the patient to emergency care facilities. In addition to post-crash care, rehabilitation plays a key role in maximizing the benefits of care and minimizes the impact (physical and psychological) of injuries *(8)*.

The first step to improve the system is to incorporate a single emergency care access number with national coverage; this number must be easy to remember and free to use *(39, 40)*. Currently, 18 countries have a single emergency care access number with nationwide coverage. To provide adequate and timely care to the injured, hospitals require essential equipment to diagnose and treat injuries as well as health care providers specifically trained for trauma and emergency to increase the likelihood of survival of the victim. Only 14 countries provide formal government-ratified certifications for prehospital providers. Meanwhile, 22 countries provide certified specialization/sub-specialization programs in emergency medicine for doctors, 15 countries for trauma surgery, and 17 countries provide a specialization in emergency care or trauma care for nurses.

Data on injuries, including information on crash events and patterns, type of clinic intervention, and the health outcome of the patient, can help to improve post-crash care and injury prevention strategies. Fifteen countries have national or subnational trauma registries in place. Additionally, assessment of emergency care systems is needed to determine the gaps in the quality of care. This would allow the development of more efficient and effective care. Only five countries have conducted these assessments. The WHO Emergency Care System Framework *(41)* is recommended for such assessments.

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Conclusions and Recommendations

While some progress has been achieved in road traffic legislation in the Region of the Americas, this report highlights the growing burden of road traffic fatalities in 15 countries in the Region. The number of road traffic deaths has increased from 153,714 in 2013 to 154,997 in 2016, while the mortality rate has remained relatively stable during this time (15.9 per 100,000 population in 2013 and 15.6 per 100,000 population in 2016).

Given that motorcyclists, pedestrians, and cyclists represent 23%, 22%, and 3% of all road traffic deaths, respectively, these vulnerable road users in particular need to be better protected to prevent deaths. There are 10 countries in the Region where these vulnerable groups represent more than 60% of all road traffic deaths.

The number of countries that meet best-practice standards for road safety legislation and their enforcement remains unacceptably low. Especially concerning is that only five countries meet the best practice on speed and just eight countries meet best practice for drink-driving laws. Particular attention must be focused on strengthening speed control and alcohol reduction policies as well as drink-driving laws, to address these two major risk factors in road traffic crashes. Very few countries rated their road safety laws enforcement as "good" for speed limits, drink-driving, helmet use, seat-belts, and child restraints, highlighting the importance of enforcement of existing laws. The establishment of a regional network of legislators on road safety and sharing of best practices and successful experiences in the Region may be a good strategy to stimulate the development and enforcement of effective road safety legislation.

National road safety agencies have a strong leadership role to play in improving the road safety situation. Although 29 countries have established lead road safety agencies, the capacity and resources of these agencies vary among countries. Thus, it is essential to focus on improving their effectiveness, coordination role, and budget where they exist, and to establish national road safety agencies in those few countries where an agency is missing.

Measures to improve road infrastructure and safer vehicles need to be prioritized, as only 18 countries and 11 countries carry out road safety audits or star ratings for new and existing roads, respectively. Countries are thus encouraged to adopt the UN Vehicle Safety Standards.

In addition, emergency care systems should be evaluated to determine the gaps in the quality of care and to allow for developing and providing more efficient and effective care, as only five countries have such assessments. Furthermore, due to the magnitude of road traffic morbidity, countries need to improve access to hospital and rehabilitation services for victims with nonfatal injuries through better integration with the health system.

In conclusion, this report highlights the need for countries to continue to prioritize road safety as a key policy issue and work with global, regional, and national partners. Efforts need to be scaled up towards the achievement of the Agenda 2030 for Sustainable Development targets: 3.6 to "halve the number of global deaths and injuries from road traffic accidents" by 2020 and 11.2 "provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons" by 2030. Achieving these goals requires all stakeholders to contribute to ensuring safe roads for all.

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Annexes

TABLE A1: National Data Coordinators by country

Country	Name of the National Data Coordinator
Antigua and Barbuda	Valarie Williams
Argentina	Veronica Heler
Barbados	Denise Carter Taylor
Belize	Jesse Chun
Bolivia (Plurinational State of)	Ana María Suxo
Brazil	Cheila Marina de Lima
Canada	Paul Boase
Chile	Carla Medina Aros
Colombia	Andrea Acero Álvarez
Costa Rica	Teresa Guzmán
Cuba	Yania Pla Ramírez
Dominica	Shalauddin Ahmed
Dominican Republic	Miguelina Figueroa
Ecuador	Klever Almeida
El Salvador	Silvia Argentina Morán de Garcia
Grenada	Shawn Charles
Guatemala	Yonni Aguilar
Guyana	Ramona Doorgen
Honduras	Dario Roberto Cálix Alvarado
Jamaica	Andriene Grant
Mexico	Ricardo Pérez Núñez
Panama	Rey Fuentes Rodríguez
Paraguay	Alberto Didier Gonzalez Cabello
Peru	Joel Gilberto Collazos Carhuay
Saint Lucia	Phil Leaon
Suriname	Johanna Lakhisaran
Trinidad and Tobago	Carla Ruiz
United States of America	Ann Dellinger
Uruguay	Pablo Posada
Venezuela (Bolivarian Republic of)	Sarai Patricia Castro Gilly

TABLE A2: Road traffic deaths and proportion of road users by country

Country	General information			Road	
	Population numbers for 2016[a]	GNI per capita for 2016 in US dollars[b]	Income level[c]	Reported number of road traffic deaths	Modeled number
					Point estimate
Antigua and Barbuda	100,963	13,400	High	8	8
Argentina	43,847,432	11,960	Middle	5,530	6,119
Barbados	284,996	14,830	High	9	16
Belize	366,954	4,410	Middle	101	104
Bolivia (Plurinational State of)	10,887,882	3,070	Middle	1,259	1687
Brazil	207,652,864	8,840	Middle	38,651[e]	41,007
Canada	36,289,824	43,660	High	1,858[e]	2,118
Chile	17,909,754	13,530	High	1,675	2,245
Colombia	48,653,420	6,320	Middle	7,158	8,987
Costa Rica	4,857,274	10,840	Middle	795[e]	812
Cuba	11,475,982	6,570[f]	Middle	750	975
Dominica	73,543	6,750	Middle	10[e]	8
Dominican Republic	10,648,791	6,390	Middle	3,118	3,684
Ecuador	16,385,068	5,820	Middle	2,894	3,490
El Salvador	6,344,722	3,920	Middle	1,215	1,411
Grenada	107,317	8,830	Middle	10	10
Guatemala	16,582,469	3,790	Middle	2,058	2,758
Guyana	773,303	4,250	Middle	128	190
Honduras	9,112,867	2,150	Middle	1,407	1,525
Jamaica	2,881,355	4,660	Middle	379	391
Mexico	127,540,424	9,040	Middle	16,039[e]	16,725
Panama	4,034,119	12,140	Middle	440	575
Paraguay	6,725,308	4,070	Middle	1,202	1,529
Peru	31,773,840	5,950	Middle	2,696	4,286
Saint Lucia	178,015	7,670	Middle	15	63
Suriname	558,368	7,070	Middle	74	81
Trinidad and Tobago	1,364,962	15,680	High	135	165
United States of America	322,179,616	56,180	High	35,092[e]	39,888
Uruguay	3,444,006	15,230	High	446	460
Venezuela (Bolivarian Republic of)	31,568,180	11,760	Middle	7,028[e]	10,640

[a] Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (June 2017). World population Prospects: The 2017 Revision, Highlights. New York: United Nations.

[b] Gross National Income (GNI) per capita is the dollar value of a country's final income in a year divided by its population using Atlas methodology. Data from World Development Indicators database, World Bank, November 2017. http://data.worldbank.org/indicator/NY.GNP.PCAP.CD/countries.

[c] World Development Indicators database: Low income is $1,005 or less, middle income is $1,006 to $12,235, high income is $12,236 or more.

traffic deaths		Road user death (%)				
of road traffic deaths[d]	Estimated road traffic death rate per 100,000 population[d]	Drivers/ passengers of 4-wheeled vehicles	Drivers/ passengers of 2- or 3-wheelers	Cyclists	Pedestrians	Other or unspecified users
95% confidence interval						
—	7.9	62.5	0	12.5	25	0
—	14	47.2	22.2	2.4	8.2	20
—	5.6	33.3	33.3	0	22.2	11.1
—	28.3	18.8	19.8	11.9	24.8	24.8
1,532 - 1,842	15.5	60.8	19.7	—	2.5	17.1
—	19.7	23.2	31.4	3.4	18.1	24
—	5.8	64.3	10.8	2.5	15.2	7.2
—	12.5	42	8.7	5.7	36	7.7
—	18.5	8.4	52.5	5.3	26	7.8
—	16.7	24	40	10.4	24.7	0.9
—	8.5	10.1	15.6	9.9	33.2	31.2
—	10.9	10	0	60	10	20
—	34.6	11	67	1	17	4
—	21.3	5.2	19.1	1.8	19.8	54
—	22.2	32.1	14.2	1.4	49	3.3
—	9.3	—	—	—	—	—
—	16.6	19.4	32.7	0.4	39.2	8.3
—	24.6	24.2	21.9	12.5	29.7	11.7
1,388 - 1,661	16.7	18.6	24.3	4.1	27.9	25.1
—	13.6	33	28.8	8.4	22.2	7.7
—	13.1	18,4[g]	9.6	1.1	28.5	42.4
—	14.3	32.3	4.4	5.7	40	17.5
—	22.7	16.5	52.2	0.2	22.5	8.7
3,898 - 4,674	13.5	2.5	0.6	0.2	8.1	88.6
—	35.4	46.7	20	13.3	13.3	6.7
—	14.5	33.8	45.9	4.1	14.9	1.4
—	12.1	57.8	2.2	0.7	31.1	8.1
—	12.4	63.9	14.2	2.3	15.3	4.2
—	13.4	30.7	45.7	7	16.6	0
—	33.7	—	—	—	—	—

[d] Modeled using negative binomial regression (see Explanatory Note 3 of the *Global Status Report on Road Safety 2018*, page 289. Available from: https://apps.who.int/iris/bitstream/handle/10665/276462/9789241565684-eng.pdf?ua=1). Data from countries with good vital registration and countries with a population of less than 150,000 were not included in the model.
[e] 2016 data not available.
[f] 2016 data not available. Latest available used from World Development Indicators database.
[g] Drivers and passengers (all vehicles).

TABLE A3: Post-crash response by country

Country	Universal access telephone number	Trauma registry	National assessment of emergency care system
Antigua and Barbuda	National, single number	—	No
Argentina	Partial coverage	Some facilities	No
Barbados	National, multiple numbers	National	No
Belize	National, single number	None	No
Bolivia (Plurinational State of)	Partial coverage	Subnational	No
Brazil	National, single number	None	No
Canada	Partial coverage	Subnational	No
Chile	National, single number	National	No
Colombia	Partial coverage	National	No
Costa Rica	National, single number	Some facilities	No
Cuba	National, single number	National	No
Dominica	National, single number	None	No
Dominican Republic	Partial coverage	National	Yes
Ecuador	National, single number	National	Yes
El Salvador	National, multiple numbers	National	Yes
Grenada	National, single number	None	No
Guatemala	National, multiple numbers	Some facilities	No
Guyana	Partial coverage	None	No
Honduras	National, single number	Some facilities	No
Jamaica	National, single number	Some facilities	No
Mexico	National, single number	National	Yes
Panama	National, single number	Some facilities	No
Paraguay	National, single number	National	No
Peru	Partial coverage	National	No
Saint Lucia	National, single number	—	No
Suriname	Partial coverage	Some facilities	No
Trinidad and Tobago	National, multiple numbers	Some facilities	No
United States of America	National, single number	National	Yes
Uruguay	National, single number	National	No
Venezuela (Bolivarian Republic of)	National, single number	National	No

Provider training and certification				Estimation of road traffic victims with permanent disability
Prehospital providers	Nurses	Specialist doctors		
Formal certification pathway	Post-graduate courses in emergency and trauma care	Emergency medicine	Trauma surgery	
No	No	No	No	—
—	—	—	—	—
Yes	No	Yes	Yes	—
No	No	No	No	—
No	Yes	Yes	No	—
No	Yes	Yes	Yes	23.5
—	Yes	Yes	Yes	—
No	Yes	Yes	Yes	—
Yes	Yes	Yes	Yes	5
Yes	Yes	Yes	Yes	—
Yes	Yes	Yes	Yes	—
No	No	No	No	—
Yes	No	Yes	No	—
Yes	Yes	Yes	Yes	—
No	No	No	No	—
No	No	No	No	—
Yes	Yes	Yes	Yes	—
Yes	Yes	Yes	No	—
Yes	—	—	—	—
No	Yes	Yes	No	1.7
Yes	Yes	Yes	Yes	16.4
Yes	Yes	Yes	No	—
No	No	Yes	Yes	—
No	Yes	Yes	Yes	3.1
Yes	No	No	No	—
No	No	Yes	No	—
No	Yes	Yes	No	—
Yes	Yes	Yes	Yes	—
No	No	Yes	Yes	—
Yes	Yes	Yes	Yes	—

TABLE A4: Speed laws and enforcement by country

Country	National speed limit law	Types of modifications allowed	Maximum
			Urban
Antigua and Barbuda	Yes	No	~ 32 km/h[a]
Argentina	Yes	Yes	60 km/h
Barbados	Yes	No	80 km/h[b]
Belize	Yes	No	~ 40 km/h
Bolivia (Plurinational State of)	Yes	Yes	40 km/h[c]
Brazil	Yes	Yes	80 km/h[d]
Canada	Yes	Yes	50 km/h
Chile	Yes	Yes	60 km/h[f]
Colombia	Yes	Yes	80 km/h
Costa Rica	Yes	No	50 km/h
Cuba	Yes	No	50 km/h
Dominica	No	No	—
Dominican Republic	Yes	No	60 km/h
Ecuador	Yes	Yes	60 km/h
El Salvador	Yes	No	50 km/h
Grenada	Yes	No	~ 32 km/h
Guatemala	Yes	Yes	60 km/h
Guyana	Yes[g]	No	~ 64 km/h
Honduras	Yes[h]	No	—
Jamaica	Yes	No	~ 48 km/h
Mexico	Yes	Yes	20 - 70 km/h
Panama	Yes	No	80 km/h
Paraguay	Yes	Yes	50 km/h
Peru	Yes	Yes	60 km/h
Saint Lucia	Yes	No	~ 24 km/h
Suriname	Yes	No	40 km/h
Trinidad and Tobago	Yes	No	50 km/h
United States of America	Yes	Yes	~ 32 - 128 km/h
Uruguay	Yes	Yes	45 km/h
Venezuela (Bolivarian Republic of)	No	No	—

[a] Applies in the City of Saint John's and in designated "speed limit areas".
[b] Speed limit set per vehicle type with a maximum speed limit of 80 km/h for specified vehicles including private motor cars.
[c] Can be increased to an unspecified speed under certain circumstances.
[d] Can be increased up to an unspecified speed.
[e] This limit applies to unpaved roadways while on undivided highway the maximum speed limit is 100 km/h for automobiles, light trucks and motorcycles.

default speed limits (km/h)		Enforcement	Predominant type of enforcement
Rural	Motorways		
~ 64 km/h	No	5	Manual
110 km/h	130 km/h	5	Manual and automated
80 km/h[b]	80 km/h[b]	4	Manual
~ 88 km/h	~ 88 km/h	4	Manual
80 km/h[c]	80 km/h	3	Manual
60 km/h[e]	110 km/h	6	Automated
50 - 100 km/h	80 - 100 km/h	4	Manual
100 km/h	120 km/h	5	Manual
120 km/h	120 km/h	5	Manual and automated
60 km/h	No	4	Manual
90 km/h	100 km/h	7	Manual
—	—	—	—
60 km/h	120 km/h	6	Manual
120 km/h	135 km/h	7	Manual and automated
90 km/h	No	6	Manual
~ 64 km/h	No	6	Manual
80 km/h	100 km/h	4	Manual
~ 64 km/h	No	7	Manual
—	—	6	Manual
~ 80 km/h	No	4	Manual
20 - 90 km/h	45 - 110 km/h	4	Manual and automated
100 km/h	120 km/h	4	Manual
110 km/h	110 km/h	4	Manual
60 km/h	100 km/h	1	Manual
~ 24 km/h	~ 56 km/h	0	
80 km/h	80 km/h	5	Manual
80 km/h	No	5	Manual
~40 - 128 km/h	~40 - 128 km/h	—	Manual
90 km/h	90 km/h	6	Manual and automated
—	—	—	Manual

[f] Can be increased up to an unspecified limit under certain circumstances.
[g] Speed limits set per vehicle type and road type - for motor cars, speed limits are: 30 mph (48 km/h) on restricted roads, 60 mph (96 km/h) on Timehri/Linden Highway and 40 mph (64 km/h) elsewhere.
[h] Legislation refers to regulations to set maximum speed limits, regulations not available.

TABLE A5: Drinking and driving laws, enforcement and road traffic deaths attributed to alcohol by country

Country	National drink-driving law	Based on BAC / BrAC[a]	National maximum legal BAC levels (g/dl)		
			General population	Young / novice drivers	Professional / commercial drivers
Antigua and Barbuda	Yes[b]	No	—	—	—
Argentina	Yes	Yes	≤0.05[c]	≤0.05[c]	0.00
Barbados	Yes	Yes	≤0.08	≤0.08	≤0.08
Belize	Yes	Yes	≤0.08	≤0.08	≤0.08
Bolivia (Plurinational State of)	Yes	Yes	≤0.05	≤0.05	≤0.05
Brazil	Yes	Yes	0.00	0.00	0.00
Canada	Yes	Yes	0.04 - 0.08[f]	0.00 - 0.08	0.04 - 0.08
Chile	Yes	Yes	≤0.03	≤0.03	≤0.03
Colombia	Yes	Yes	<0.02	<0.02	<0.02
Costa Rica	Yes	Yes	≤0.05	≤0.02	≤0.02
Cuba	Yes	Yes	≤0.01	0.00	0.00
Dominica	Yes	Yes	≤0.08	≤0.08	≤0.08
Dominican Republic	Yes	Yes	≤0.05	0.00	0.00
Ecuador	Yes	Yes	≤0.03	≤0.03	≤0.01
El Salvador	Yes	Yes	<0.05	<0.05	<0.05
Grenada	Yes[b]	No	—	—	—
Guatemala	Yes[b]	No	—	—	—
Guyana	Yes	Yes	≤0.08	≤0.08	≤0.08
Honduras	Yes	Yes	<0.07	<0.07	<0.07
Jamaica	Yes	Yes	≤0.08	≤0.08	≤0.08
Mexico	Yes[g]	No	—	—	—
Panama	Yes	Yes	≤0.05	≤0.05	≤0.05
Paraguay	Yes	Yes	0.00	0.00	0.00
Peru	Yes	Yes	≤0.05	≤0.05	≤0.025
Saint Lucia	Yes	Yes	≤0.08	≤0.08	≤0.08
Suriname	Yes	Yes	≤0.05	≤0.05	≤0.05
Trinidad and Tobago	Yes	Yes	≤0.08	≤0.08	≤0.08
United States of America	Yes	Yes	≤0.08	0.00 - 0.08[h]	0.00 - 0.08
Uruguay	Yes	Yes	0.00	0.00	0.00
Venezuela (Bolivarian Republic of)	Yes[b]	No	—	—	—

[a] Blood alcohol concentrations (BAC) and breath alcohol concentration (BrAC).
[b] Not based on BAC.
[c] ≤0.2 g/l for motorcycle drivers.
[d] Legislation requires probable cause to test drivers or commission of a traffic offense.
[e] Legislation requires probable cause to test drivers.

Random breath testing carried out	Testing carried out in case of fatal crash	Enforcement	% road traffic deaths involving alcohol	National drug driving law	Alcohol prohibited
No	Some drivers tested	4	0.9	Yes	No
Yes	—	6	17	Yes	No
Yes[d]	All drivers tested	2	—	Yes	No
Yes[d]	All drivers tested	4	—	Yes	No
Yes[e]	All drivers tested	4	6.4	Yes	No
Yes	Some drivers tested	6	—	Yes	No
Yes[e]	All drivers tested	8	29.6	Yes	No
Yes	All drivers tested	6	13	Yes	No
Yes	All drivers tested	5	—	Yes	No
Yes	All drivers tested	4	31.2	Yes	No
Yes	All drivers tested	7	33.3	Yes	No
No	No	1	—	Yes	No
Yes	Some drivers tested	3	—	Yes	No
Yes[e]	All drivers tested	7	6.8	Yes	No
Yes	Some drivers tested	7	—	Yes	No
No	No	1	—	Yes	No
Yes	Some drivers tested	4	—	Yes	No
Yes[e]	No	7	17	Yes	No
Yes[e]	All drivers tested	8	6.8	Yes	No
Yes[d]	Some drivers tested	2	—	Yes	No
Yes	Some drivers tested	7	19.5	Yes	No
Yes	All drivers tested	5	—	Yes	No
Yes	All drivers tested	6	—	Yes	No
Yes	All drivers tested	2	9.3	Yes	No
No	All drivers tested	0	—	Yes	No
Yes	Some drivers tested	5	—	Yes	No
Yes[e]	All drivers tested	6	—	Yes	No
Yes	Some drivers tested	—	29	Yes	No
Yes	Some drivers tested	9	—	Yes	No
Yes	All drivers tested	4	—	Yes	No

[f] National BAC limit is set at 0.08 g/dl. However, in practice all subnational entities have provided their own BAC limits that are reflected in the range above.
[g] Not based on BAC in 19 out of 32 states.
[h] Over 90% of the states provide a BAC limit equal or under 0.02 g/dl for young/novice drivers.

TABLE A6: Helmet laws, enforcement and wearing rates by country

Country	National motorcycle helmet law	Applies to driver	Applies to adult passengers	Applies to all roads	Applies to all engines
Antigua and Barbuda	No	—	—	—	—
Argentina	Yes	Yes	Yes	Yes	Yes
Barbados	Yes	Yes	Yes	Yes	Yes
Belize	Yes	Yes	Yes	No	Yes
Bolivia (Plurinational State of)	Yes	Yes	Yes	Yes	Yes
Brazil	Yes	Yes	Yes	Yes	Yes
Canada	Yes	Yes	Yes	Yes	Yes
Chile	Yes	Yes	Yes	Yes	Yes
Colombia	Yes	Yes	Yes	Yes	Yes
Costa Rica	Yes	Yes	Yes	Yes	Yes
Cuba	Yes	Yes	Yes	Yes	Yes
Dominica	No	—	—	—	—
Dominican Republic	Yes	Yes	Yes	Yes	Yes
Ecuador	Yes	Yes	Yes	Yes	Yes
El Salvador	Yes	Yes	Yes	Yes	Yes
Grenada	Yes	Yes	Yes	Yes	Yes
Guatemala	Yes	Yes	Yes	Yes	Yes
Guyana	No	—	—	—	—
Honduras	Yes	Yes	Yes	Yes	Yes
Jamaica	Yes	Yes	Yes	Yes	Yes
Mexico	No	No	No	No	No
Panama	Yes	Yes	Yes	Yes	Yes
Paraguay	Yes	Yes	Yes	Yes	Yes
Peru	Yes	Yes	Yes	Yes	Yes
Saint Lucia	Yes	Yes	Yes	Yes	Yes
Suriname	Yes	Yes	Yes	Yes	No
Trinidad and Tobago	Yes	Yes	Yes	Yes	Yes
United States of America	Yes	No[a]	No[a]	No	No
Uruguay	Yes	Yes	Yes	Yes	Yes
Venezuela (Bolivarian Republic of)	Yes	Yes	Yes	Yes	Yes

[a] About 40% of the states require helmets for both drivers and passengers on motorcycles.
[b] Less than 10% of the states prohibit that children ride as passengers on motorcycles.

Motorcycle helmet law				
Helmet fastening required	Standard referred to and/or specified	Children passengers on motorcycles	Enforcement rating	Helmet wearing rate (%)
—	—	Not restricted	—	—
Yes	Yes	Not restricted	4	65.4% Drivers, 44.2% Passengers
No	Yes	Not restricted	9	—
Yes	No	Not restricted	5	—
No	Yes	Not restricted	3	51.9% Drivers, 3% Passengers
Yes	Yes	Prohibited under 7 yrs	7	83.4% Drivers, 80.1% Passengers
Yes	Yes	Not restricted	10	98% Drivers, 98% Passengers
Yes	Yes	Not restricted	9	99% Drivers, 98% Passengers
No	Yes	Not restricted	4	96% Drivers, 79.8% Passengers
No	Yes	Prohibited under 5 yrs	5	98.3% Drivers, 91.8% Passengers
Yes	No	Prohibited under 7 yrs	8	95% Drivers, 90% Passengers
—	—	Not restricted	—	—
No	Yes	Prohibited under 8 yrs	5	27% Drivers, 2% Passengers
Yes	Yes	Prohibited under 7 yrs	8	90% Drivers, 12 - 52% Passengers
Yes	No	Not restricted	7	—
No	Yes	Not restricted	1	—
No	No	Not restricted	4	36% Drivers, 11% Passengers
—	—	Not restricted	—	50% Drivers, 20% Passengers
No	No	Not restricted	4	—
Yes	Yes	Not restricted	2	6% Drivers, 2% Passengers
No	No	Not restricted	—	83.1% Drivers, 55.4% Passengers
No	No	Not restricted	6	—
Yes	Yes	Prohibited under 12 yrs	6	—
No	No	Not restricted	4	69.9% Drivers, 7.7% Passengers
No	Yes	Not restricted	2	—
Yes	Yes	Not restricted	7	95% Drivers, 92% Passengers
No	Yes	Not restricted	9	—
No	Yes	Not restricted[b]	—	67.8% Drivers, 52.5% Passengers
No	Yes	Prohibited until footrests can be reached	7	80.2% Drivers, 71.2% Passengers
No	No	Prohibited under 10 yrs	3	—

TABLE A7: Seat-belt laws, enforcement and wearing rates by country

Country	National seat-belt law	Seat-belt applies to		
		Drivers	Front seat passengers	Rear seat passengers
Antigua and Barbuda	No	—	—	—
Argentina	Yes	Yes	Yes	Yes
Barbados	Yes	Yes	Yes	Yes
Belize	Yes	Yes	Yes	No
Bolivia (Plurinational State of)	Yes	Yes	No	No
Brazil	Yes	Yes	Yes	Yes
Canada	Yes	Yes	Yes	Yes
Chile	Yes	Yes	Yes	Yes
Colombia	Yes	Yes	Yes	Yes
Costa Rica	Yes	Yes	Yes	Yes
Cuba	Yes	Yes	Yes	Yes
Dominica	Yes	Yes	Yes	Yes
Dominican Republic	Yes	Yes	Yes	Yes
Ecuador	Yes	Yes	Yes	Yes
El Salvador	Yes	Yes	Yes	No
Grenada	Yes	Yes	Yes	No
Guatemala	Yes	Yes	Yes	No
Guyana	Yes	Yes	Yes	No
Honduras	Yes	Yes	Yes	Yes
Jamaica	Yes	Yes	Yes	Yes
Mexico	No	No	No	No
Panama	Yes	Yes	Yes	Yes
Paraguay	Yes	Yes	Yes	Yes
Peru	Yes	Yes	Yes	Yes
Saint Lucia	Yes	Yes	Yes	No
Suriname	Yes	Yes	Yes	Yes
Trinidad and Tobago	Yes	Yes	Yes	No
United States of America	Yes	Yes	Yes	No[a]
Uruguay	Yes	Yes	Yes	Yes
Venezuela (Bolivarian Republic of)	Yes	Yes	Yes	Yes

[a] About 40% of the states do not require seat-belt for rear seat passengers.

Enforcement	Seat-belt wearing rates (%)			
	Drivers	Front seat passengers	Rear seat passengers	All passengers
—	—	—	—	—
5	50.2	40.8	23.1	43.6
7	—	—	—	—
5	—	—	—	—
2	20.8	3.5	0.5	9.7
7	—	79.4	50.2	—
6	95.7	95.2	89.2	95.3
6	76	59	14	49.6
5	75	64.2	2.2	47.1
4	77.8	75.1	35.6	76.7
5	35	30	—	—
1	—	—	—	—
8	45	18	5	34
8	80	26	2	36
7	—	—	—	—
8	—	—	—	—
4	—	—	—	—
8	95	95		42
6	—	—	—	—
3	51	54	4	—
6	81.4	49	5.6	58.9
7	—	—	—	—
6	—	—	—	—
5	58.2	15.8	0.4	32.3
7	—	—	—	—
7	75	75	8	—
8	—	—	—	—
—	90.5	90.1	74.8	90.1
6	69.1	62.8	33	62.8
6	—	—	—	—

TABLE A8: Child restraint laws, enforcement and percentage of child restraint use by country

Country	Child restraint systems law		
	National child restraint law	Child restraints required	Standard referred to and/or specified
Antigua and Barbuda	No	—	—
Argentina	Yes	Up to 4 yrs[a]	No
Barbados	Yes	Up to 4 yrs	Yes
Belize	No	—	—
Bolivia (Plurinational State of)	No	—	—
Brazil	Yes	Up to 7.5 yrs	Yes
Canada	Yes	—[b]	Yes
Chile	Yes	Up to 8 yrs / 33 kg / 135 cm	Yes
Colombia	No[c]	—	—
Costa Rica	Yes	Up to 12 yrs / 145 cm	No
Cuba	No[d]	—	—
Dominica	No	—	—
Dominican Republic	Yes	Up to 6 yrs[e]	Yes
Ecuador	Yes[f]	—[f]	No
El Salvador	Yes	Up to 2 yrs / 15 kg	No
Grenada	No	—	—
Guatemala	No	—	—
Guyana	Yes[h]	—	No
Honduras	No[i]	—	—
Jamaica	Yes[h]	—	Yes
Mexico	No	—	—
Panama	No[j]	—	—
Paraguay	Yes	Up to 5 yrs	No
Peru	Yes	Up to 3 yrs[k]	Yes
Saint Lucia	No	—	—
Suriname	Yes[l]	—[l]	No
Trinidad and Tobago	Yes	Up to 5 yrs	Yes
United States of America	Yes	—[m]	Yes
Uruguay	Yes	Up to 12 yrs / 36 kg / 150 cm	Yes
Venezuela (Bolivarian Republic of)	Yes[n]	—	No

[a] A 2018 amendment (not covered in the review period ending at December 2017) raised the age for mandatory child restraint use to 10 years old.
[b] Child restraint laws are enacted at subnational level. While all provinces require the use of child restraints, they provide different age / height criteria to specify the period for mandatory use of child restraint / booster seats.
[c] A child under 2 years travelling with a driver only shall be placed in a child restraint. If there is an adult passenger, the child can be held by the adult instead of being placed in a child restraint.
[d] Children under 2 years shall be either accompanied by adults or restrained with special accessories.
[e] Children aged 6-12 years shall be placed in a booster seat.
[f] The legislation refers to seat belt or child restraints for children under 12 years but does not yet specify a minimum age / height / weight under which only child restraint systems can be used.

Children seated in front seat	Enforcement	Percentage of children using child restraints
Not restricted	—	—
Prohibited under 10 yrs	—	26.4
Prohibited under 4 yrs	4	—
Not restricted	—	—
Not restricted	—	—
Prohibited under 10 yrs	7	57
Allowed in a child restraint	8	91
Prohibited under 12 yrs	4	73
Prohibited under 10 yrs	—	7.1
Prohibited under 12 yrs / 145 cm	5	—
Prohibited under 12 yrs	—	—
Not restricted	—	—
Prohibited under 12 yrs	4	—
Prohibited under 12 yrs	5	15
Not restricted[g]	—	—
Not restricted	—	—
Not restricted	—	—
Not restricted	0	—
Prohibited under 12 yrs	—	—
Not restricted	2	—
Not restricted	—	13.7
Prohibited under 5 yrs	—	—
Prohibited under 10 yrs	2	—
Prohibited under 12 yrs	1	<1
Not restricted	—	—
Allowed in a child restraint	4	—
Prohibited under 5 yrs	3	—
Allowed in a child restraint	—	89
Prohibited under 12 yrs / 150 cm	4	23
Prohibited under 10 yrs	3	—

[g] Except for children under 2 yrs old or 15 kg who are required to be transported in a child restraint.
[h] The legislation refers to child restraint system for children but does not specify the age / height group covered by this obligation.
[i] Legislation refers to the protection of children under 5 years but does not specify which form this protection takes.
[j] Children under 2 years shall be placed in a child restraint only where there is no other passenger seated in the rear.
[k] Legislation requires the use of the seat belt for children from 3-12 years old.
[l] For children under 10 years, the legislation refers to the use of child restraint system (CRS) where available and appropriate, and specifies that in the absence of child restraint.
[m] Child restraint laws are enacted at subnational level. While all states require the use of child restraints, they provide different age / weight / height criteria to specify the period for mandatory use of child restraints/ booster seats.
[n] The law requires "infants" to use "special seats for that purpose" but does not specify the age for children falling into the "infants" category.

TABLE A9 : Mobile phone laws by country

Country	National mobile phone law	Mobile phone law		Any data on use of mobile phone while driving
		Applies to hand-held phone use	Applies to hands-free phone use	
Antigua and Barbuda	No	—	—	No
Argentina	Yes	Yes	Yes	Yes
Barbados	Yes	Yes	No	No
Belize	No	—	—	No
Bolivia (Plurinational State of)	No	—	—	No
Brazil	Yes	Yes	Yes	Yes[a]
Canada	Yes	Yes	No	Yes[a]
Chile	Yes	Yes	No	Yes
Colombia	Yes	Yes	No	No
Costa Rica	Yes	Yes	No	Yes
Cuba	Yes	Yes	Yes	Yes
Dominica	No	—	—	—
Dominican Republic	Yes	Yes	No	Yes[a]
Ecuador	Yes	Yes	No	Yes
El Salvador	Yes	Yes	Yes	Yes
Grenada	No	—	—	No
Guatemala	Yes	Yes	No	Yes
Guyana	Yes	Yes	No	Yes
Honduras	Yes	Yes	Yes	Yes
Jamaica	No	—	—	Yes
Mexico	No	No	No	Yes[a]
Panama	Yes	Yes	Yes	No
Paraguay	Yes	Yes	Yes	No
Peru	Yes	Yes	No	Yes[a]
Saint Lucia	Yes	No	No	No
Suriname	Yes	Yes	No	Yes
Trinidad and Tobago	Yes	Yes	No	Yes
United States of America	Yes	No[b]	No	Yes
Uruguay	Yes	Yes	No	Yes
Venezuela (Bolivarian Republic of)	Yes	Yes	No	No

[a] Only some specific studies.
[b] The majority of states prohibit texting while driving.


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TABLE A10: Road safety management, strategies and targets by country

Country	Lead agency		Functions of the lead	
	A lead agency is present	The lead agency is funded	Coordination	Legislation
Antigua and Barbuda	Yes	No	Yes	Yes
Argentina	Yes	Yes	Yes	Yes
Barbados	Yes	No	Yes	Yes
Belize	Yes	Yes	Yes	Yes
Bolivia (Plurinational State of)	Yes	Yes	Yes	Yes
Brazil	Yes	Yes	Yes	Yes
Canada	Yes	No[a]	Yes	Yes
Chile	Yes	No	Yes	Yes
Colombia	Yes	No	Yes	Yes
Costa Rica	Yes	No	Yes	Yes
Cuba	Yes	Yes	Yes	Yes
Dominica	Yes	No	Yes	Yes
Dominican Republic	Yes	Yes	Yes	Yes
Ecuador	Yes	Yes	Yes	Yes
El Salvador	Yes	Yes	Yes	Yes
Grenada	Yes	Yes	Yes	Yes
Guatemala	Yes	Yes	Yes	Yes
Guyana	Yes	Yes	Yes	Yes
Honduras	Yes	Yes	Yes	Yes
Jamaica	Yes	Yes	Yes	No
Mexico	Yes	Yes	Yes	Yes
Panama	Yes	Yes	Yes	Yes
Paraguay	Yes	Yes	Yes	Yes
Peru	Yes	Yes	Yes	Yes
Saint Lucia	Yes	Yes	Yes	Yes
Suriname	No	—	—	—
Trinidad and Tobago	Yes	No	No	No
United States of America	Yes	Yes	Yes	Yes
Uruguay	Yes	Yes	Yes	Yes
Venezuela (Bolivarian Republic of)	Yes	Yes	Yes	Yes

[a] A self-sustaining organization funded by membership fees and data services.

agency	Road safety strategies		Road safety targets	
Monitoring & evaluation	There is a national road safety strategy	The strategy is funded	Fatal	Nonfatal
Yes	No	—	—	—
Yes	Yes	Fully funded	Yes	No
Yes	No	—	—	—
Yes	Yes	Partially funded	Yes	Yes
Yes	Yes	Partially funded	Yes	Yes
Yes	Yes	Partially funded	No	No
Yes	Yes	Partially funded	Yes	Yes
Yes	Yes	Partially funded	No	No
Yes	Yes	Partially funded	Yes	Yes
Yes	Yes	Fully funded	Yes	No
Yes	Yes	Fully funded	Yes	No
Yes	No	—	—	—
Yes	Yes	Partially funded	Yes	No
Yes	Yes	Partially funded	Yes	Yes
Yes	Yes	Partially funded	Yes	Yes
Yes	No	—	—	—
Yes	Yes	Partially funded	Yes	No
Yes	Yes	Partially funded	Yes	No
Yes	Yes	Partially funded	No	No
No	Yes	Partially funded	Yes	No
Yes	Yes	Partially funded	Yes	No
Yes	Yes	Partially funded	Yes	Yes
Yes	Yes	Partially funded	Yes	Yes
Yes	Yes	Partially funded	Yes	Yes
Yes	No	—	—	—
—	No	—	—	—
No	Yes	Partially funded	No	No
Yes	Yes	Fully funded	Yes	Yes
Yes	No	—	—	—
Yes	Yes	Fully funded	No	No

TABLE A11: Safer mobility by country

Country	Number of registered vehicles	Audits or star rating required for new road infrastructure	Inspections/star rating of existing roads
Antigua and Barbuda	36,030	Partial	No
Argentina	21,633,587	Partial	Yes
Barbados	117,104	No	Yes
Belize	56,094	Yes	Yes
Bolivia (Plurinational State of)	1,711,005	Yes	Yes
Brazil	93,867,016	Yes	No
Canada	23,923,806	Partial	Yes
Chile	4,960,945	No	No
Colombia	13,477,996	Partial	No
Costa Rica	1,991,398	No	—
Cuba	633,369	No	Yes
Dominica	35,796	—	No
Dominican Republic	3,854,038	Yes	No
Ecuador	1,925,368	Yes	Yes
El Salvador	1,008,080	Partial	No
Grenada	27,266	Partial	Yes
Guatemala	3,250,194	Partial	No
Guyana	15,694	Yes	No
Honduras	1,694,504	Yes	No
Jamaica	541,316	Yes	Yes
Mexico	40,205,671	No	Yes
Panama	1,288,573	No	No
Paraguay	1,871,947	Yes	Yes
Peru	5,604,789	No	—
Saint Lucia	35,681	No	No
Suriname	228,388	No	No
Trinidad and Tobago	831,803	Partial	No
United States of America	281,312,446	No	—
Uruguay	2,342,026	No	No
Venezuela (Bolivarian Republic of)	7,999,760	Yes	—

Design standards for the safety of pedestrians/cyclists	Investments to upgrade high risk locations	Policies & investment in urban public transport	Policies promoting walking and cycling
Partial	No	No	No
Yes	Yes	Yes	Yes
Partial	No	Yes	No
Yes	No	No	No
Yes	No	Yes	Subnational
Partial	Yes	Yes	Yes
Yes	Yes	Yes	Subnational
Partial	No	Yes	Subnational
No	No	Yes	No
No	No	Yes	Subnational
Partial	Yes	Yes	No
Partial	No	No	No
Partial	Yes	Yes	Yes
Partial	No	Yes	Yes
Partial	No	Yes	Yes
Partial	Yes	No	No
Partial	Yes	Yes	Subnational
Partial	No	No	No
Yes	Yes	No	No
Partial	No	Yes	Yes
Yes	Yes	Yes	Yes
Partial	No	Yes	Subnational
Partial	No	Yes	Subnational
No	Yes	No	Yes
Partial	No	No	No
Partial	No	Yes	No
Yes	No	Yes	No
No	Yes	Yes	Yes
Partial	No	Yes	Yes
Yes	No	Yes	No

TABLE A12: Vehicle standards by country

Country			
	Seat-belts	Seat-belt anchorages	Frontal impact
Antigua and Barbuda	No	No	No
Argentina	Yes	Yes	Yes[a]
Barbados	No	No	No
Belize	No	No	No
Bolivia (Plurinational State of)	No	No	No
Brazil	Yes	Yes	Yes
Canada	Yes	Yes	Yes
Chile	No	No	No
Colombia	No	No	No
Costa Rica	No	No	No
Cuba	No	No	No
Dominica	No	No	No
Dominican Republic	No	No	No
Ecuador	Yes	Yes	Yes
El Salvador	No	No	No
Grenada	No	No	No
Guatemala	No	No	No
Guyana	No	No	No
Honduras	No	No	No
Jamaica	No	No	No
Mexico	Yes	No	No
Panama	No	No	No
Paraguay	No	No	No
Peru	No	No	No
Saint Lucia	No	No	No
Suriname	No	No	No
Trinidad and Tobago	No	No	No
United States of America	Yes	Yes	Yes
Uruguay	Yes	Yes	No
Venezuela (Bolivarian Republic of)	No	No	No

[a] Only for new models.
[b] For new models as from 2018.
[c] Mandatory as from 2018 under voluntary agreement with car makers but postponed to 2022 by the new government following Brazil ESC mandatory date.
[d] Brazil included the requirement for side impact for new vehicles from 2020.

Vehicle Standards				
Side impact	Electronic stability control	Pedestrian protection	Child seats	Motorcycle anti-lock bracking system
No	No	No	No	No
Yes[b]	No[c]	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No[d]	No	No	Yes	Yes
Yes	Yes	No	Yes	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
Yes	Yes	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
No	No	No	No	No
Yes	Yes	No	Yes	No
No	No	No	Yes	No
No	No	No	No	No

This 2019 edition of the Regional Road Safety report presents the latest available data covering a range of road safety issues. Key data from WHO's global report informs the comprehensive survey results gathered from 30 of the 35 countries of the Americas. The results indicate that current trends will prohibit the Region from meeting the SDG target to halve the number of road deaths. To reduce road traffic injuries and meet the global goals, road safety must be prioritized as a key policy issue in each country of the Americas, as road traffic deaths in the Region account for 11% of global road traffic deaths.

Compounding the safety risks, current law enforcement and surveillance of safety standards is rated as insufficient by most responding countries. The evidence clearly shows that implementing and properly enforcing legislation targeted to key risk factors has proven to be effective in reducing traffic injuries and fatalities. These best-practice criteria are used to assess individual country progress in creating and enforcing legislation to ensure safe roads.

This status report is part of the ongoing effort to improve monitoring and increase access to road traffic data, which will allow countries to better assess road traffic risks and prioritize effective interventions. In so doing, the Americas will strive to reduce injuries and provide safe roads for all to use.

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