

ROAD SAFETY COUNTRY PROFILE



BELARUS



Funded by
the European Union



WORLD BANK GROUP
Transport



EaP | Eastern
Partnership





ACKNOWLEDGMENTS

This activity was funded by a grant from the European Commission—DG NEAR, under the umbrella of the World Bank support to the Eastern Partnership Transport Panel (EaP) and has been carried-out by a World Bank team led by Elena Lungu (Transport Specialist), including Gregoire Gauthier (Senior Transport Specialist), William Wambulwa (Road Safety Consultant) and Tatiana Mihailova (Road Safety Consultant). The World Bank team would like to thank its counterparts in Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine for fruitful discussions, consultations, ideas and access to data and information. This report was written in close consultation with the representatives of the Regional Working Groups as part of the EaP Transport Panel Secretariat Activity.

This report, created by the World Bank, is available under the Creative Commons Attribution 3.0 Unported (CCBY3.0) license.

Photo on front cover: Adobe Stock / ©zenstock.

Photo on back cover: Adobe Stock / ©iamtripper.

DISCLAIMER

This document reports on data collected directly from the members of the EaP Regional Working Groups on road safety. Whilst every effort has been made to ensure that the information presented in this report is relevant, accurate and up-to-date, the Partners cannot accept any liability for any error or omission, or reliance on part or all of the content in another context.

The findings, interpretations, and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the Board of Executive Directors of the World Bank or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

This document reports on data collected directly from the members of the EaP Regional Working Groups on road safety during the first quarter of 2021. In June 2021, Belarus has suspended its participation in EU's Eastern Partnership initiative.

Please refer to this Report as follows: World Bank, Road Safety Country Profile—Belarus, 2021.



TABLE OF CONTENTS

| | | |
|----------|---|-----------|
| 1 | SNAPSHOT OF KEY ROAD SAFETY INDICATORS | 4 |
| 2 | BASIC DATA, CHARACTERISTICS AND DEFINITIONS | 5 |
| | Basic Data and Population Characteristics | |
| | Road Safety Definitions | |
| 3 | DETAILED ROAD SAFETY STATUS IN BELARUS | 6 |
| | General Road Safety Positioning (in comparison with EU-27 Countries) | |
| | Road Crash Fatalities and Injuries Analysis | |
| | Economic and Social Cost of Road Crashes, Fatalities and Injuries | |
| | Underreporting of Road Crashes, Fatalities and Injuries | |
| 4 | PILLAR 1 ROAD SAFETY MANAGEMENT | 11 |
| | Institutional Framework of Road Safety | |
| | Road Crash Data Collection System | |
| | Road Safety Funding and Expenditure (Projects and Performance) | |
| 5 | PILLAR 2 SAFER ROADS AND ROADSIDES | 15 |
| | Road Infrastructure Safety Assessment Performance | |
| | Road Safety Infrastructure Investments | |
| 6 | PILLAR 3 SAFER SPEEDS | 18 |
| | Speed Limits and Comparison with Safe System Speed Limits | |
| | Speed Calming Infrastructure | |
| 7 | PILLAR 4 SAFER VEHICLES | 20 |
| | Vehicle Population and Distribution | |
| | Compliance with UN Vehicle Safety Regulations | |
| | Regulation of Imported Vehicles and Periodic Inspection of Existing Fleet | |
| 8 | PILLAR 5 SAFER ROAD USERS | 21 |
| | Seatbelt Usage | |
| | Motorcycle Helmet Usage | |
| | Drink Driving and Drug Driving | |
| | Child Restraint Usage | |
| | Mobile Phone Usage | |
| 9 | PILLAR 6 POST-CRASH CARE | 23 |
| | National Emergency Care Access Number Coverage | |
| | Trauma Registry System | |
| | Other Key Post-Crash Care Indicators | |



SNAPSHOT OF KEY ROAD SAFETY INDICATORS

| | |
|--------------------------------|-------------------|
| Country Population: | 9,408,400 People |
| Gross Domestic Product: | 60.2 Billion US\$ |
| GDP per Capita: | 6,399 US\$ |

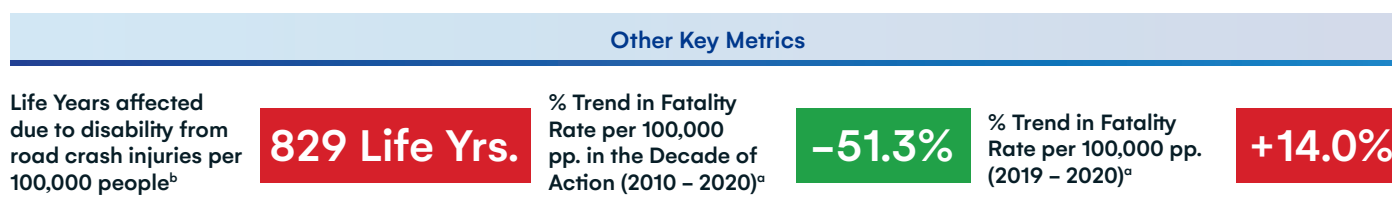
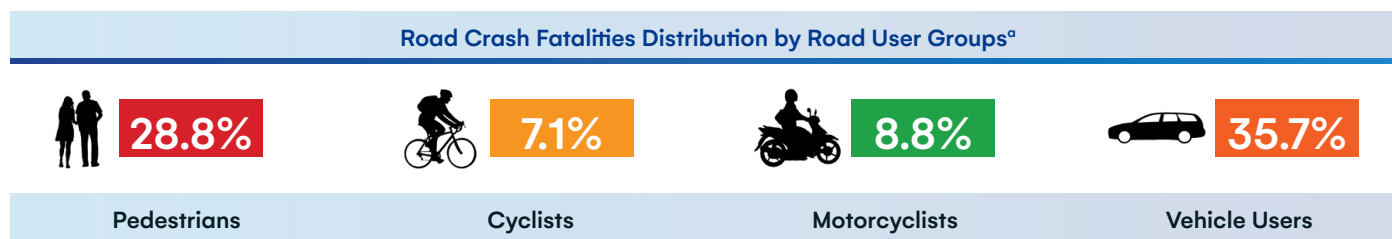
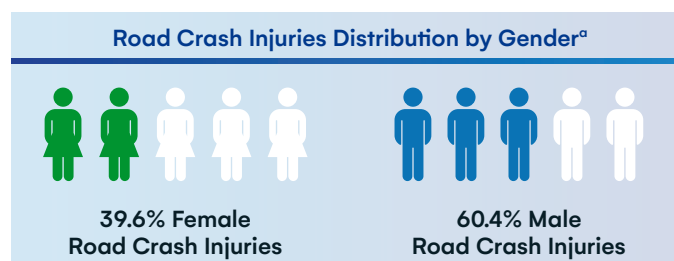
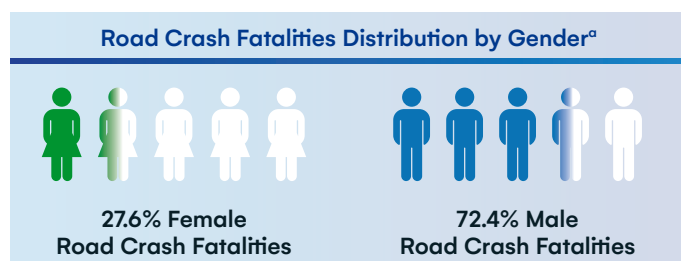
| | |
|---|---------------------------|
| Cost of Road Crash Fatalities: | 257.6 Million US\$ |
| Cost of Road Crash Serious Injuries: | 965.9 Million US\$ (Est.) |
| Cost of Road Crashes (% of GDP): | 2.0 % of GDP |

| | |
|--|------------------------|
| No. of Road Crashes: | 3,599 Road Crashes |
| No. of Road Crash Fatalities: | 575 Fatalities |
| Total No. of Road Crash Injuries: | 3,732 Injuries |
| No. of Road Crash Serious Injuries: | 2,429 Serious Injuries |
| Road Crash Fatality Rate: | 6.11 per 100,000 pop. |

| | |
|---|-------------------------|
| No. of Registered Vehicles (2019): | 4,432,103 Vehicles |
| Motorization Rate (2019): | 471 vehicles/1,000 pop. |

Table 1

Summary of Key Road Safety Indicators in Belarus (for 2020)



Sources: ^a Belarus National Data

^b Global Burden of Disease (GBD) 2019, Institute for Health Metrics and Evaluation (IHME)



BASIC DATA, CHARACTERISTICS AND DEFINITIONS

Basic Data and Population Characteristics

Table 2

Belarus Basic Data and Population Characteristics in comparison with EaP and EU Region Averages (for 2020)

| Basic data | Belarus ^a | EaP average (6 countries) | EU Average (28 countries) ^b |
|---|--------------------------------|--------------------------------|--|
| Population | 9.41 million | 27.94 million | 45.5 million |
| Area | 202,980 km ² | 167,499 km ² | 159,848 km ² |
| Population density | 45 inhabitants/km ² | 76 inhabitants/km ² | 166 inhabitants/km ² |
| Urban population (% of total) | 77.6 % | 67.4 % | 75 % |
| Population Composition: | | | |
| Children (0 – 14 years) | 17.2 % (2020) | – | 15.1 % (2019) |
| Adults (15 – 64 years) | 67.2 % (2020) | – | 64.4 % (2019) |
| Elderly (65 years and over) | 15.6 % (2020) | – | 20.5 % (2019) |
| Gross Domestic Product (GDP) per capita (2019) | 6,399 Current US\$ | 4,323.65 Current US\$ | 65,297.52 Current US\$ |

Sources: ^a Belstat: belstat.gov.by

^b EUROSTAT: ec.europa.eu/eurostat

Road Safety Definitions in Belarus

Table 3

Road Safety Definitions in Belarus

| | |
|---|--|
| Road Crash ¹ | an accident committed with the participation of at least one motor vehicle in motion, as a result of which harm is caused to the life or health of an individual, his property or the property of a legal entity. |
| Road Crash Fatality ¹ | a person who died from injuries sustained at the scene of a crash or within thirty days of the accident, if there is a documented cause-and-effect relationship between the occurrence of death and the injuries sustained in the accident. |
| Road Crash Serious Injury ² | Serious bodily injury — damage that is life-threatening, or has resulted in the loss of vision, speech, hearing, or any organ or the loss of its functions by the organ, termination of pregnancy, mental disorder (disease), other health disorder associated with a permanent loss of general working capacity of at least one third, or caused a health disorder associated with an injury to the bones of the skeleton for a period of more than four months, or expressed in an indelible disfigurement of the face or neck; Less serious bodily injury — damage that is not life-threatening, but has caused a long-term health disorder for up to four months or a significant permanent disability of less than one-third |
| Road Crash Minor Injuries ² | damage resulting in a short-term health disorder or minor permanent disability; or Injuries that did not cause a short-term health disorder were caused and person underwent inpatient treatment. |
| Black spot ³ | road section that is characterized by a steady level of non-random traffic accidents |

Sources: ¹ Traffic rules of the Republic of Belarus

² Instruction on the procedure of forensic examination on identifying severity of bodily injuries bit.ly/2U7INZP

³ TCP 586—2016 “Highways. The order of work on the organization of road traffic during maintenance.”



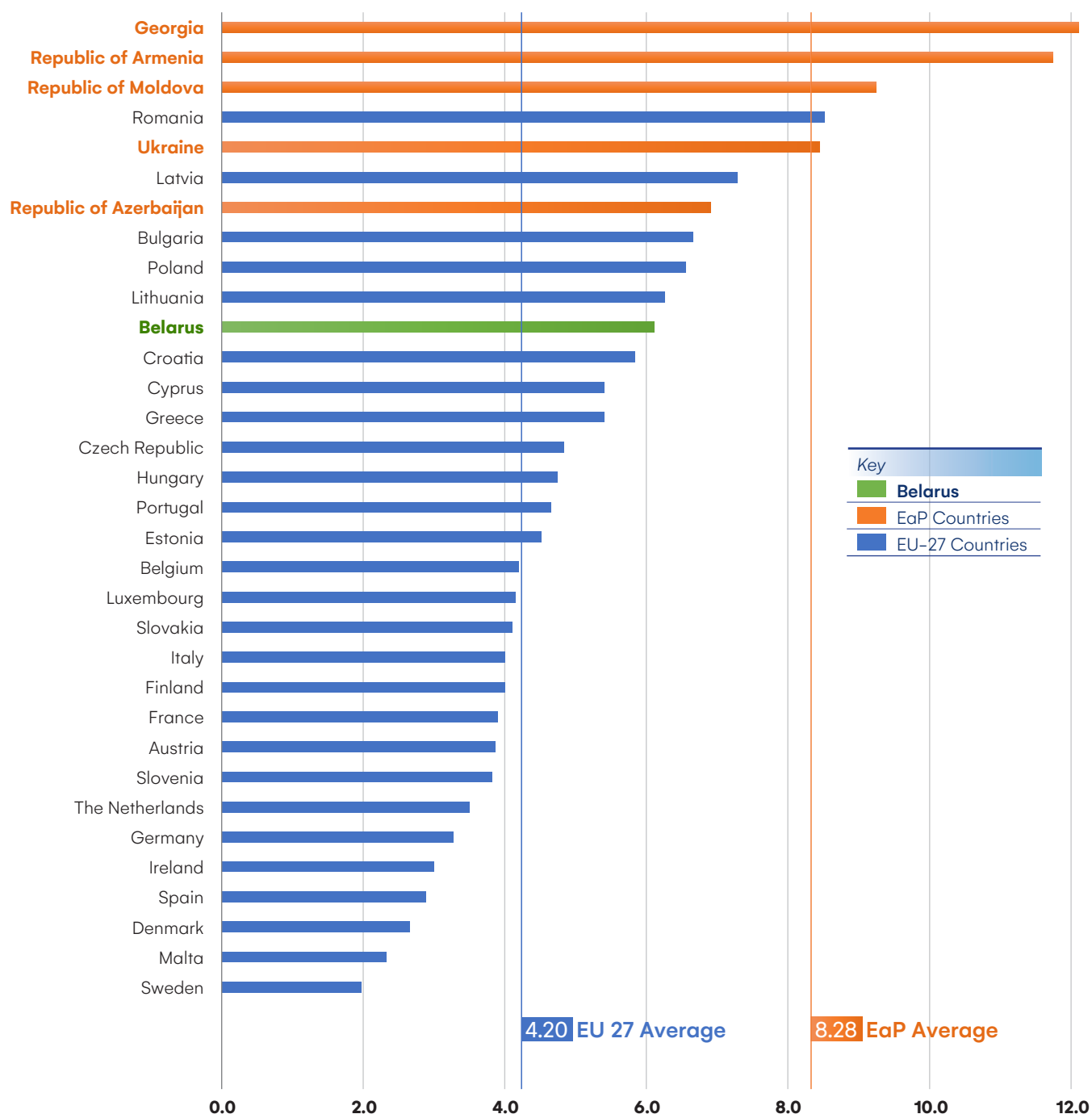
DETAILED ROAD SAFETY STATUS IN BELARUS

General Road Safety Positioning (in comparison with European Countries)

In 2020, Belarus recorded the lowest road crash fatality rate, **6.11 fatalities per 100,000 inhabitants**, registered in the EaP region and 11th highest in the EU-27. The fatality rate in Belarus is **lower than the EaP average** and **higher than the EU-27 average** fatality rates by **26.2%** and **27.7%**, respectively. The actual fatality rate registered may be higher, given that the fatality rate has not been corrected for under-reporting.

Figure 1 Road Crash Fatalities per 100,000 inhabitants in 2020 with EaP and EU-27 region averages.

Sources 27 EU countries—15th Annual Road Safety Performance Index (PIN) Report – 2021, ETSC; 6 EaP countries —National statistics





DETAILED ROAD SAFETY STATUS IN BELARUS

Road Crash Fatalities and Injuries Analysis

In 2020, Belarus registered an overall **increase** in the number of recorded **road crashes (0.9%)**, an overall **increase** in the number of recorded **road crash fatalities (12.2%)** and an overall **decrease** in the number of recorded **road crash injuries (2.3%)**, as compared to 2019.

It is noteworthy to mention that during 2020, the COVID-19 pandemic had a significant impact on transport and mobility across the globe, including the EaP region, bringing travel to a standstill, thus leading to an **overall reduction in the number of registered road crashes**. However, it is noted that the **reduction in the registered road crash fatalities is not of the same magnitude**, possibly due to an increase in recorded speeding caused by less traffic, leading to a **higher proportion of fatalities for each road crash**.

The **longer-term trend** for road crash fatalities in Belarus is **declining**. During **2010–2020**, the number of road crash fatalities per 100,000 inhabitants in Belarus **dropped by 51.3%**.

The figures below give an overall impression of the scale of road crash fatalities and injuries in Belarus.

Figure 2

Road Crashes, Fatalities and Injuries in Belarus (2008 – 2020), National Data

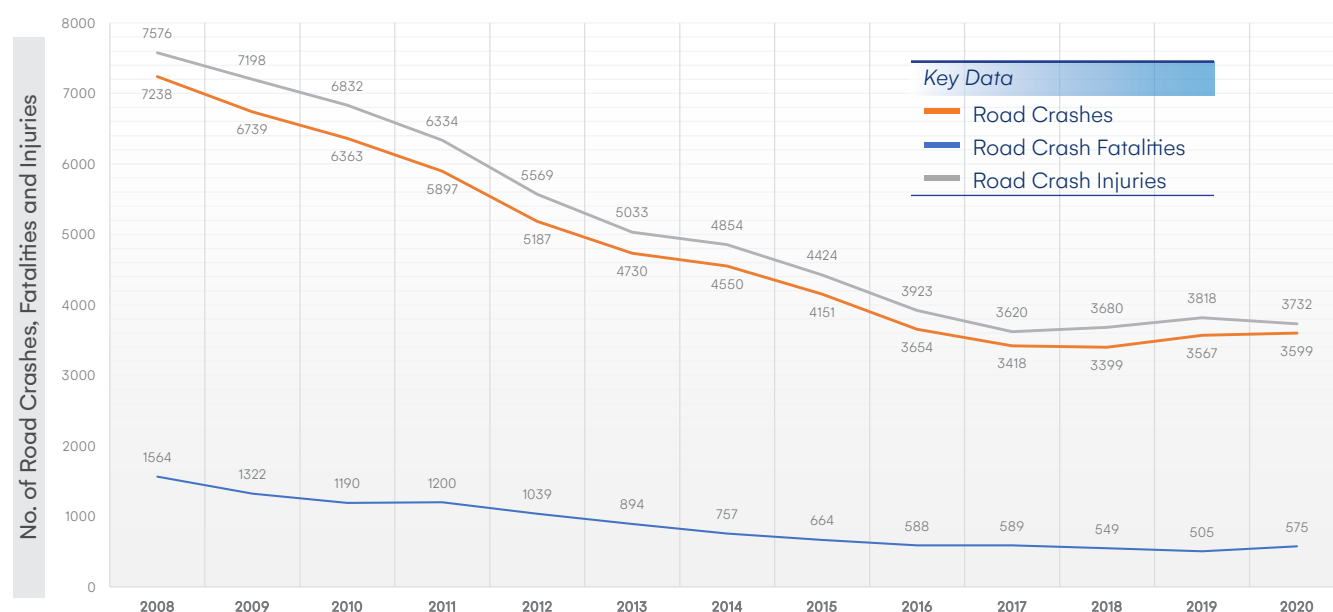


Figure 3

Evolution of Road Crash Fatalities in Belarus by Road User Group, Age Group, Urban/Rural Areas and Gender from National Data





DETAILED ROAD SAFETY STATUS IN BELARUS

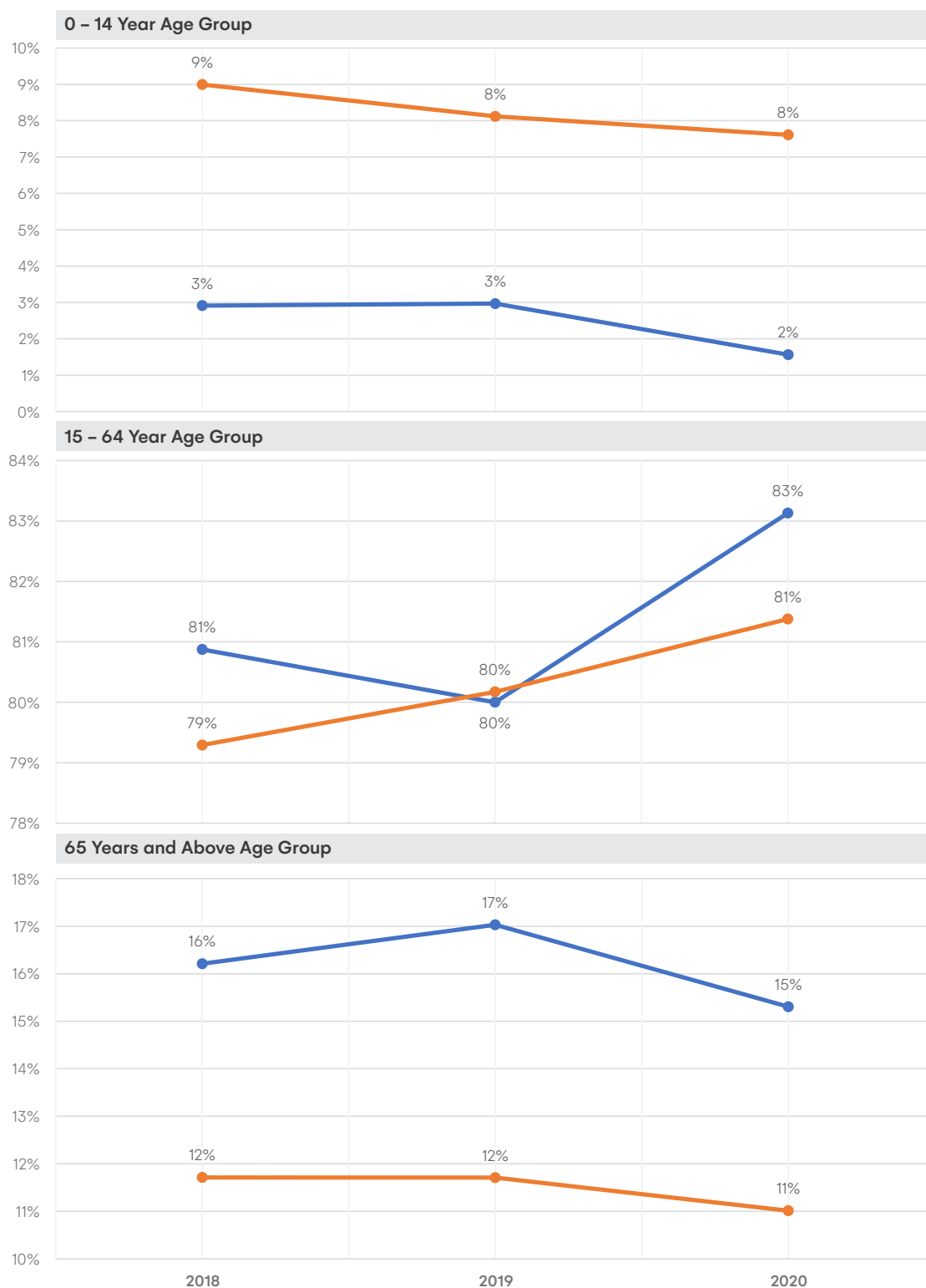
Age has a significant impact on mortality and risk of road crash fatality and injuries, thus it is recommended to investigate and control this factor. The **most significant mortality rate** due to road crashes in Belarus is observed among population aged **between 15 and 64 Years, accounting for an average of 80% of Road Crash Fatalities and Injuries**. Road Crash Fatalities and Injuries registered during 2015–2020 have incurred insignificant change within 0–14 and 65 Years & Above Age Groups.

Figure 4

Distribution of Road Crash Fatalities and Injuries by Age Groups in Belarus (from National Data)

Key Data

- Road Crash Fatalities
- Road Crash Injuries





DETAILED ROAD SAFETY STATUS IN BELARUS

The most **Vulnerable Road Users (VRUs)** in Belarus include pedestrians (on average accounting for **39.5% of road crash fatalities and 28.3% of road crash injuries**) and vehicle occupants (on average accounting for **32% of road crash fatalities and 34.8% of road crash injuries**).

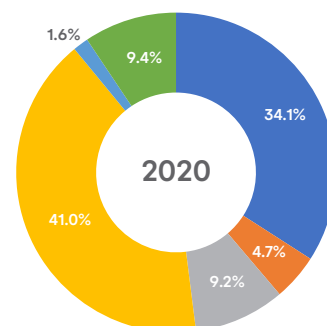
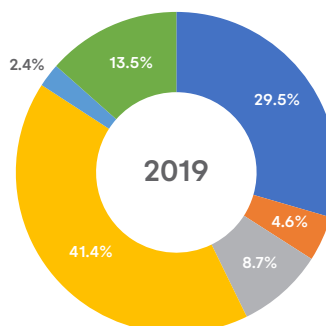
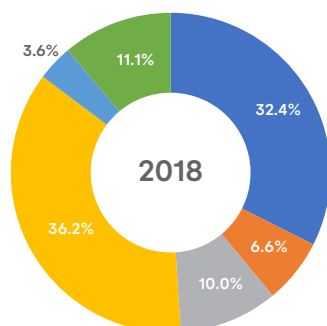
Figure 5

Distribution of Road Crash Fatalities by Road User Group (from National Data)

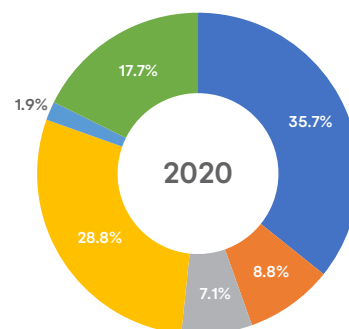
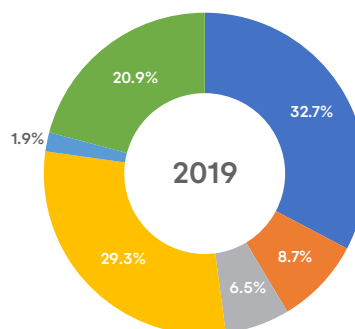
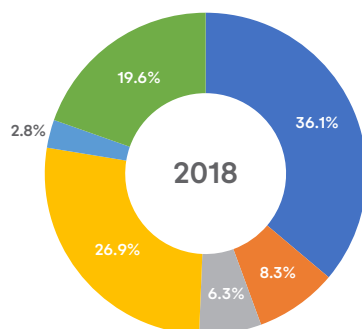
Key

- Vehicle Occupants
- 2/3 Wheelers
- Cyclists
- Pedestrians
- Truck Occupants
- Other Categories

Road Crash Fatalities Distribution by Road User Groups



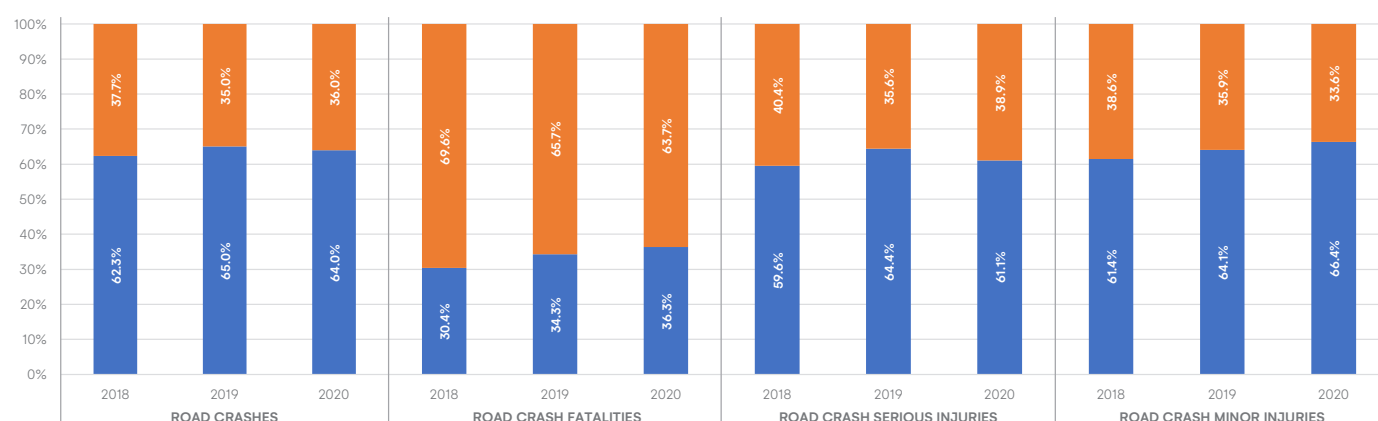
Road Crash Injuries Distribution by Road User Groups



Belarus has an urban population of approximately **77.6%**. National data indicates that rural areas account for more than half of the total road crash fatalities registered in the country; for an average of a third of road crashes. Urban areas account for more than half of road crash serious and minor injuries. Further analysis of urban and rural area contexts of road crashes is required to learn and understand the disparity, considering a **higher mortality risk in rural areas**.

Figure 6 Distribution of Road Crashes, Fatalities and Injuries by Area (Urban/Rural) – from National Data (2020)

Key Urban Areas Rural Areas





DETAILED ROAD SAFETY STATUS IN BELARUS

Economic and Social Cost of Road Crashes Fatalities and Injuries

The Economic and Social Cost of Road Crash Fatalities and Injuries in Belarus has been calculated by applying the general approximation rule developed by iRAP (**Fatality Cost – 70 x GDP/Capita; Serious Injury Cost – 17.5 x GDP/Capita**). An estimate of **15:1 ratio of serious injuries per fatality** has been used where data was not available (*Developed by iRAP and Adjusted by GRSF, World Bank*). The socio-economic cost of Road Crash Fatalities and Serious Injuries in Belarus has been **steadily decreasing (by 63.6%)** since its highest in 2008 (**5.5% of GDP**) to **2.0% of GDP** estimated for 2020.

Figure 7

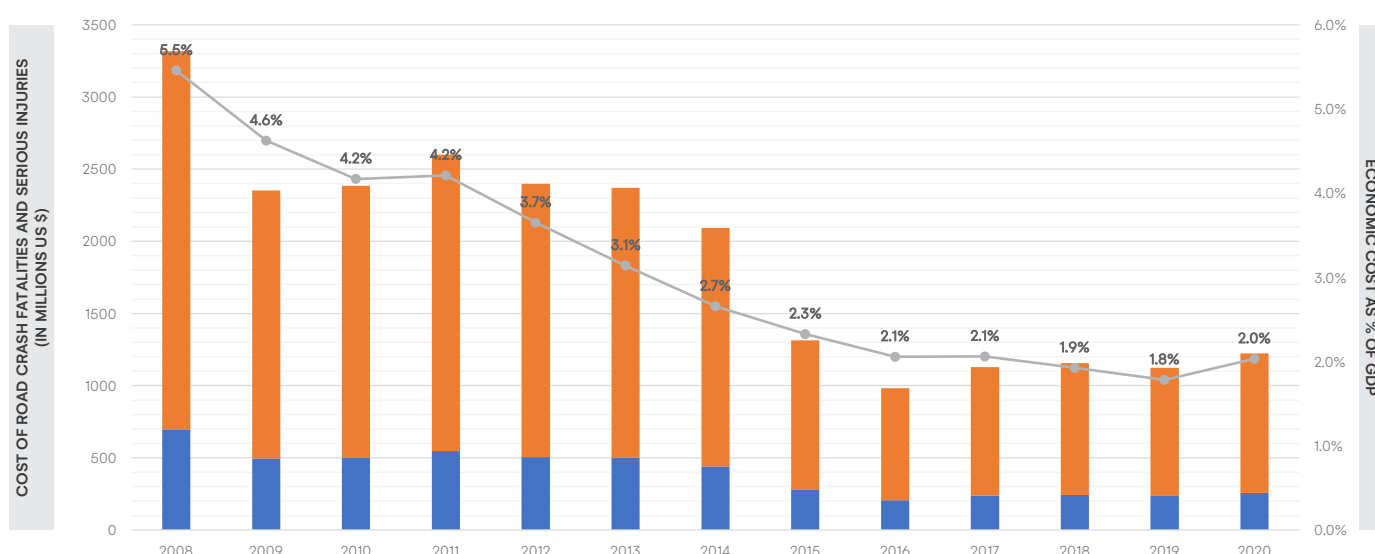
Economic Cost of Road Crash Fatalities and Serious Injuries

Key

Economic Cost of Road Crash Fatalities

Economic Cost of Road Crash Serious Injuries

Economic Cost of Road Crashes as percentage of GDP



Data Discrepancy of Road Crashes Fatalities and Injuries Data

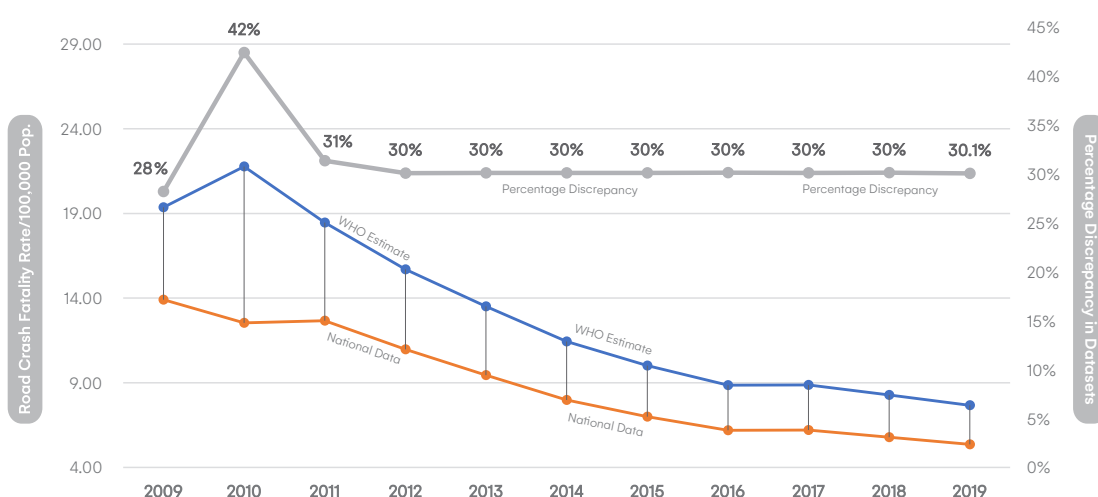
Data Discrepancy in Belarus **reported at the national level and corrected by WHO** has been estimated at between **28–42%** in 2009–2019, showing a high level of under-reporting in the country presumably due to a lack of a robust data collection system that is interlinked with hospitals, police and other actors. This discrepancy is higher than the average discrepancy in the EaP and EU-27.

Figure 8

Data Discrepancy of Road Crash Fatalities in Belarus – between National Data and WHO Estimates

Source

WHO Global Health Observatory data (2009 – 2019)





PILLAR 1 | ROAD SAFETY MANAGEMENT

Institutional Framework of Road Safety in Belarus

Table 4 Road Safety Institutional Framework in Belarus

| Road Safety Function | Key Institution |
|-------------------------|---|
| Road Safety Lead Agency | The Standing Committee on Road Safety within the Council of Ministers of the Republic of Belarus, the Ministry of Interior of the Republic of Belarus and the Ministry of Transport and Communications (MoTC) of the Republic of Belarus on competence. |
| Lead Agency Funding | <ul style="list-style-type: none"> » Road Fund; » Resources of the fund of preventive measures for certain types of compulsory and voluntary insurance. » State program for the development and maintenance of highways in the Republic of Belarus for 2017–2020. |
| Lead Agency Functions | <p>Activities of the state bodies and other organizations aimed to prevent the road traffic accidents and reduce the severity of their consequences are coordinated by the Standing Committee on Road Safety within the Council of Ministers of the Republic of Belarus, as well as by road safety committees within the local executive and administrative bodies.</p> <p>The Ministry of Internal Affairs of the Republic of Belarus takes timely measures to coordinate the actions of state bodies and other organizations on eliminating the causes and conditions that contribute to the road traffic offences and (or) committing road traffic accidents.</p> |
| Road Safety Targets | <p>Planned and implemented activities of the ‘Dobraya doroga’ [Good Road] set of measures to increase road safety in the Republic of Belarus for 2019–2025, aimed at improving the safety and effectiveness of road traffic, are subject to road safety expertise (audit) and are ranked on the basis of the following criteria:</p> <ul style="list-style-type: none"> » impact on the road safety aiming at reducing the number of deaths; » the potential for reducing the number of deaths; » impact on key road traffic threats; » economic effectiveness of measures taking into account the financial and material costs and economic, environmental, accidental, social losses; » impact on road safety aiming at reducing the number of injured persons; » the potential for decrease in the number of injured persons; » shape a positive public opinion. |

Table 5 Key Actors per Road Safety Function in Belarus

| Road Safety Function | Name of Key Institution | Legal Act |
|---|--|--|
| Road Safety Coordination | The Permanent Commission of the Ensuring Transport Safety under the Council of Ministers of the Republic of Belarus | Decree of the Council of Ministers of the Republic of Belarus No. 437 dated April 5th, 2007 |
| Formulation of National RS Strategy | The Council of Ministers of the Republic of Belarus, The Permanent Commission of the Ensuring Transport Safety under the Council of Ministers of the Republic of Belarus | The Law of the Republic of Belarus of 05.01.2008 No.313—3 |
| Development of RS Action Plan | | |
| Development of RS Programme | | Decree of the Council of Ministers of the Republic of Belarus No. 1851 dated December 31th, 2002 |
| Monitoring of the RS development in the country | The State Automobile Inspectorate | |



PILLAR 1 | ROAD SAFETY MANAGEMENT

Table 5 Key Actors per Road Safety Function in Belarus (Cont.)

| Road Safety Function | Name of Key Institution | Legal Act |
|-------------------------------------|--|---|
| Implementation of the RS programme | Republican state administration bodies, local executive and administrative bodies, the State Automobile Inspectorate | The Law of the Republic of Belarus of 05.01.2008 No.313—3 Decree of the Council of Ministers of the Republic of Belarus No. 1851 dated December 31th, 2002 |
| Improvements in road infrastructure | MoTC, local executive and administrative bodies | The Law of the Republic of Belarus of 05.01.2008 No. 313—3, The Law of the Republic of Belarus of 02.12.1994 No. 3434—XII |
| Vehicle improvement | The State Committee for Standardization ('Gosstandart' – [State standard]) | Decree of the Council of Ministers of the Republic of Belarus No. 981 dated July 31th, 2006 |
| Improvement in road user education | Ministry of Education, MoTC, the State Automobile Inspectorate | The Law of the Republic of Belarus of 05.01.2008 No. 313—3, |
| Publicity campaigns | Ministry of Information, the State Automobile Inspectorate, public organizations (e.g., Belarusian Auto Moto Touring Club) | The Law of the Republic of Belarus of 05.01.2008 No. 313—3, Decree of the Council of Ministers of the Republic of Belarus No. 1545 dated October 26th, 2001 |
| Enforcement of road traffic laws | The State Automobile Inspectorate | The Law of the Republic of Belarus of 05.01.2008 No. 313—3, Decree of the Council of Ministers of the Republic of Belarus No. 1851 dated December 31th, 2002 |

Based on the analysis of road crashes in 2011 – 2016 included in the Road Safety Strategy for 2017 – 2025, the key identified risk factors leading to road crash fatalities are the following:

Table 6 Key Road Safety Risk Factors in Belarus

| Factors | % of Fatalities | Factors | % of Fatalities |
|---|-----------------|---|-----------------|
| Road network | 66% | Excessive speeding | 31% |
| Lack of road/street lighting | 57% | Transit drivers | 30% |
| Vulnerable road users (pedestrians, cyclists) | 51% | Access of pedestrians to the road at the prohibited locations | 30% |
| Human error/behavioral risk | 42% | Trucks | 17% |
| Children, elderly people, people with disabilities etc. | 32% | Speed of vehicles | 13% |
| Weather conditions | 36% | Motorcyclists | 8% |
| Novice drivers | 34% | | |

Road Crash Data Collection System

Road crash data collection is performed centrally, and the procedure is regulated by the relevant Order of the Ministry of Internal Affairs¹. Crash data is collected at the scene of an accident through a paper-based form and is further entered into an online crash database. The last modification to the scope of the crash data collected was done in 2017.

Sources: ¹ Order of the Ministry of Internal Affairs No. 97 dated March 21st, 2013.



PILLAR 1 | ROAD SAFETY MANAGEMENT

The State Department of the Automobile Inspectorate of the MoI sends crash data (without sensitive data) to the 'Beldorcenter'. The Beldorcenter manages data input into a central road safety database, which contains data only about road crashes on public roads (data is available since 1997). The database used by Beldorcenter is called "Accounting and analysis of road accidents on public roads of the Republic of Belarus".

Online access to the Beldorcenter database is provided to the registered users from the MoTC and the state enterprises (roads owners). The other institutions and organizations can get access to the database on a contractual basis. The State Automobile Inspectorate of the Ministry of Internal Affairs publishes an annual internal report in a paper form.

The Inspectorate of the Ministry of Internal Affairs publishes an annual internal report in a paper form. Up-to-date data on the accidents number is available on the website of the Ministry of Internal Affairs.¹ Annual information is published on the website of the National Statistical Committee.² The MoTC is responsible for preparation of publicly available annual road safety reports (Analytical Digest of the MoTC). Analytical digest of the MoTC includes detailed information regarding road traffic crashes on public roads and only general numbers of the road traffic accidents, fatalities and injuries on the other roads in Belarus.

Detailed analysis of the current status of the crash data collection in Belarus and comparison of current crash data structure with CADaS is provided in the Country Note for Belarus prepared by the World Bank team under the EaP Transport Panel road safety activity and is available at the EaP road safety web-site.³ The figure provides an overview of the results of the crash data system benchmarking assessment for the EaP and is based on self-reporting.

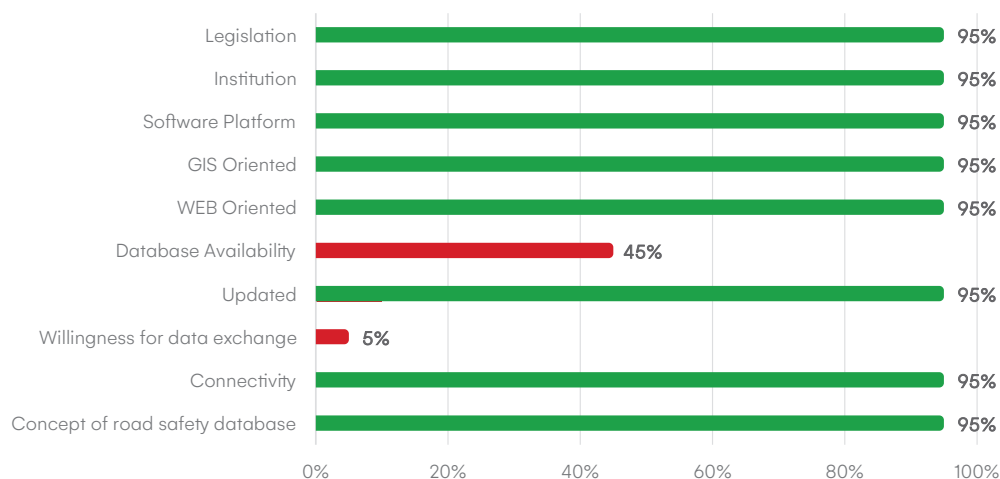
Sources: ¹ bit.ly/2HvBZ22

² bit.ly/2Y2FZMs

³ bit.ly/2TuWm59

Figure 9

Crash data system
benchmarking assessment
for Belarus



Road Safety Funding and Expenditure (Projects and Performance)

Partial funding for the implementation of the Road Safety Strategy is provided out of the national budget.



PILLAR 1 | ROAD SAFETY MANAGEMENT

Table 7 Ongoing Road Safety Projects and Financial/Technical Assistance from IFIs

| Title | Period | Brief Objectives/Expected Outcomes | Achieved Road Safety Outputs |
|--|------------------|---|---|
| Government Road Safety Programs | | | |
| The Concept for ensuring Road Safety in the Republic of Belarus (approved by Decree of the Council of Ministers of the Republic of Belarus of 14 June 2006 No 757) | 2006 – Ongoing | The goal of the Concept is to create conditions for maximum protection of road users, reducing the total losses in road traffic by at least 25% in 2015 compared to 2005, including a reduction of at least 500 people in the number of deaths of road accidents, and at least 20% by 2020 compared to 2015 with a reduction in the overall level of road traffic injuries | The main directions of improving road safety in the Republic of Belarus are: <ol style="list-style-type: none"> 1. achieving the most complete compliance of vehicles, road infrastructure and traffic management with the needs of the society; 2. improving the efficiency of management and state control in the field of road traffic and ensuring its safety; 3. building a state ideology of traffic management based on improving road safety and respecting the rights and freedoms of citizens in this area; 4. the availability of broad public support in the implementation of the state policy in the field of road traffic and ensuring its safety. |
| ‘Dobraya doroga’ [Good Road] set of measures to increase the road safety in the Republic of Belarus for 2019–2025 | 2019 – 2025 | <p>The goal for 2020 is no more than 500 deaths in road accidents.</p> <p>The goal for 2025 is no more than 350 deaths in road accidents.</p> | The objectives of the “Good Road” are: <ol style="list-style-type: none"> 1. improvement of the system of effective management mechanism and transport policy to ensure road safety (general measures); 2. organization of a set of measures aimed primarily at eliminating the main threats to road traffic (direct measures); 3. involvement in the process of ensuring road safety of persons and organizations that affect road safety (hereinafter referred to as road safety operators), citizens, public organizations; 4. leveraging existing financial, administrative and human resources (structural programmes). |
| World Bank | | | |
| Transit Corridor Improvement Project | 2014 – Dec. 2021 | <p>The objective of the Transit Corridor Improvement Project is to improve transport connectivity, border crossing procedures and safety for domestic and international road users on selected sections of the M6 corridor. There are three components to the project:</p> <ul style="list-style-type: none"> » Component 1: improvement of Sections of M6 ‘Minsk—Grodno’ Transit Corridor; » Component 2: road safety and network management. » Component 3: border management enhancement. | <p>Component 2 includes the following sub-components:</p> <ol style="list-style-type: none"> 1. traffic and road safety coordination center; 2. road-side services. <p>Additional components on extension of the project include:</p> <ul style="list-style-type: none"> » feasibility study for rehabilitation and road safety improvements of selected section » review of the national regulatory framework on traffic safety management during road construction works and wild animal road crossings in Belarus. <p>Project Indicators show that there has been a 60% reduction of road crash fatalities and serious injuries on the corridor.</p> |
| Technical Support to the Eastern Partnership Transport Panel | 2017 – Ongoing | <p>The Bank provides secretariat services to the EaP transport panel that includes activities as follows:</p> <ul style="list-style-type: none"> » Maintain database of projects and country profiles » Maintain and develop transport model of EaP » Facilitate discussion around key topics and most importantly road safety » Support in preparation of investment plan for EaP region | The Bank supports three regional working groups on road safety to implement actions in the areas of institutional development, enforcement and black spot management; develops a knowledge platform to share country profiles, project documentation and technical reports. |



PILLAR 2 | SAFER ROADS AND ROADSIDES

Road Infrastructure Safety Assessment Performance

The benchmarking survey on implementation of the EU road safety Directive in each of the EaP countries was conducted by the EaP TP Secretariat in two rounds during 2018. Initially, a quantitative survey was conducted, where EaP countries self-reported the degree to which the introduction of individual measures from the **EU 2008/96 Directive on road infrastructure safety** has been achieved. Subsequently, an additional qualitative survey was produced by the Bank team, focusing on the four main tools of **Road Safety Audit (RSA)**, **Inspection (RSI)**, **Impact Assessment (RSIA)** and **Blackspot Management (BSM)** and aiming at a closer understanding of the current situation.

Table 8

EaP Countries Status regarding EC 96/2008 Directive Implementation

| EaP Countries Status regarding the Implementation of the EC 96/2008 Directive | | Answers confirmed by countries | | | | | |
|---|------------|--------------------------------|-----------|------------|-----------|-----------|------------|
| Impact Indicators used | ARM | AZE | BLR | GEO | MDA | UKR | EaP Av. |
| Implementation of RSIA (Road Safety Impact Assessment) | | | | | | | |
| Legal basis for RSIA exists | 90 | 95 | 5 | 5 | 5 | 5 | 34 |
| Adequate RSIA manual in official use | 80 | 95 | 5 | 5 | 5 | 5 | 33 |
| Trained staff for RSIA available | 60 | 50 | 5 | 5 | 10 | 5 | 23 |
| Road Authorities have budget to purchase RSIA | 50 | 95 | 5 | 5 | 5 | 5 | 28 |
| All major new roads and reconstructions passed RSIA procedure | 75 | 95 | 5 | 5 | 5 | 5 | 32 |
| RSIA Recommendations being accepted in feasibility stage | 80 | 95 | 5 | 5 | 5 | 5 | 33 |
| Total Scores for Road Safety Impact Assessments (RSIA) | 435 | 525 | 30 | 30 | 35 | 30 | 183 |
| Implementation of RSA (Road Safety Audit) | | | | | | | |
| Legal basis for RSA (Road Safety Audit) exists | 85 | 50 | 5 | 30 | 5 | 5 | 30 |
| Adequate RSA manual in official use | 95 | 70 | 5 | 85 | 5 | 5 | 44 |
| Trained road safety auditors available | 25 | 50 | 5 | 50 | 30 | 15 | 29 |
| Road Authorities have budget to purchase RSA | 25 | 95 | 5 | 10 | 5 | 5 | 24 |
| All new, reconstructed and rehabilitated roads being safety audited | 50 | 95 | 5 | 10 | 25 | 5 | 32 |
| RSA Recommendations being implemented by Roads Authority | 80 | 95 | 5 | 50 | 20 | 5 | 43 |
| Total Scores for Road Safety Audits (RSA) | 360 | 455 | 30 | 235 | 90 | 40 | 202 |
| Implementation of RSI (Road Safety Inspection) | | | | | | | |
| Revision (update) of road design standards undertaken | 75 | 95 | 25 | 75 | 85 | 5 | 60 |
| Revision (update) of road design norms (guidelines) undertaken | 65 | 95 | 25 | 80 | 20 | 5 | 48 |
| Convention of road signs/ signals 1968 fully implemented | 60 | 95 | 25 | 50 | 30 | 10 | 45 |



PILLAR 2 | SAFER ROADS AND ROADSIDES

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive

Answers confirmed by countries

| Impact Indicators used | ARM | AZE | BLR | GEO | MDA | UKR | EaP Av. |
|---|------------|------------|------------|------------|------------|------------|------------|
| Implementation of RSI (Road Safety Inspection) | | | | | | | |
| Vehicle Restraint Systems (VRS) standard based on EN 1317 | 50 | 95 | 75 | 20 | 5 | 5 | 42 |
| Work zone protection based on best international practice | 70 | 95 | 75 | 75 | 35 | 5 | 59 |
| Harmonization between standards/norms/guidelines and other legislation undertaken | 80 | 50 | 75 | 80 | 50 | 5 | 57 |
| Average Scores for Road Safety Inspections (RSI) | 400 | 525 | 300 | 380 | 225 | 35 | 311 |
| Black Spot Management – BSM (Black Spot Management) | | | | | | | |
| Legal basis for BSM (Black Spot Management) exists | 60 | 50 | 90 | 10 | 10 | 50 | 45 |
| Adequate BSM Manual in official use | 50 | 35 | 75 | 70 | 5 | 85 | 53 |
| Clear definition (criteria) of black spot exists | 80 | 80 | 85 | 10 | 20 | 85 | 60 |
| Trained black spot investigators available | 80 | 80 | 70 | 40 | 30 | 20 | 53 |
| Annual black spot improvement program in place | 95 | 75 | 70 | 75 | 5 | 20 | 57 |
| Road Authorities has dedicated funds for BSM improvements | 90 | 50 | 70 | 50 | 10 | 5 | 46 |
| BSM recommendations being implemented by Roads Authority | 90 | 70 | 70 | 70 | 50 | 5 | 59 |
| Average Scores for Black Spot Management (BSM) | 545 | 440 | 530 | 325 | 130 | 270 | 373 |
| Road Assessment Program (RAP) (e.g. iRAP) | | | | | | | |
| Legal basis for RAP (Road Assessment Program) exists | 60 | 20 | 80 | 10 | 5 | 10 | 31 |
| RAP implemented on road network | 50 | 20 | 80 | 10 | 20 | 5 | 31 |
| Annual RAP program exists | 50 | 20 | 50 | 10 | 5 | 10 | 24 |
| Road Authorities has dedicated funds for RAP improvements | 60 | 80 | 50 | 10 | 5 | 10 | 36 |
| RAP recommendations being implemented by Roads Authority | 80 | 80 | 80 | 10 | 5 | 10 | 44 |
| Average Scores for Road Assessment Programs (RAP) | 300 | 220 | 340 | 50 | 40 | 45 | 166 |
| Application of traffic calming measures | | | | | | | |
| Legal basis for application of traffic calming measures exists | 60 | 50 | 90 | 10 | 10 | 50 | 45 |
| Adequate traffic calming Manual in official use | 50 | 35 | 75 | 70 | 5 | 85 | 53 |
| Clear criteria for selection of traffic calming measures exists | 80 | 80 | 85 | 10 | 20 | 85 | 60 |
| Trained staff available | 80 | 80 | 70 | 40 | 30 | 20 | 53 |
| Road Authorities has dedicated funds for traffic calming implementation | 95 | 75 | 70 | 75 | 5 | 20 | 57 |
| Traffic calming recommendations being implemented by Roads Authority | 90 | 50 | 70 | 50 | 10 | 5 | 46 |
| Average Scores for Traffic Calming Measures | 455 | 370 | 460 | 255 | 80 | 265 | 314 |



PILLAR 2 | SAFER ROADS AND ROADSIDES

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive

Answers confirmed by countries

| Impact Indicators used | ARM | AZE | BLR | GEO | MDA | UKR | EaP Av. |
|--|------------|------------|------------|------------|------------|------------|------------|
| Application of road design standard/norms (guideline) revision | | | | | | | |
| Revision (update) of road design standards undertaken | 85 | 95 | 90 | 80 | 50 | 30 | 72 |
| Revision (update) of road design norms (guidelines) undertaken | 75 | 80 | 90 | 80 | 50 | 30 | 68 |
| Convention of road signs/ signals 1968 fully implemented | 100 | 95 | 99 | 80 | 100 | 90 | 94 |
| Vehicle Restraint Systems (VRS) standard based on EN 1317 | 60 | 70 | 50 | 80 | 80 | 30 | 62 |
| Work zone protection based on best international practice | 40 | 50 | 40 | 50 | 50 | 20 | 42 |
| Harmonization between standards/norms/guidelines and other legislation undertaken | 60 | 80 | 80 | 80 | 70 | 50 | 70 |
| Average Scores for Road Design Standard Revision | 420 | 470 | 449 | 450 | 400 | 250 | 408 |
| Building the capacity of engineers and technical staff | | | | | | | |
| Adequate Manuals/Guidelines for safety engineering produced | 50 | 75 | 30 | 70 | 10 | 10 | 41 |
| Selected Government, Consultants and Academic staff trained | 35 | 75 | 30 | 60 | 5 | 5 | 35 |
| Different road safety curricula for University courses produced (RSIA, RSA, RSI, RAP, BSM, TC) | 40 | 50 | 40 | 30 | 30 | 5 | 33 |
| Students being taught about safe design approaches during their studies | 50 | 50 | 50 | 30 | 70 | 10 | 43 |
| Average Scores for Capacity Building | 175 | 250 | 150 | 190 | 115 | 30 | 152 |

Road Safety Infrastructure Investments

Improving the world's roads to a **3-star or better** standard is a key way to achieve the United Nations Sustainable Development Goals target of **halving road deaths and injuries by 2030**. The **Business Case for Safer Roads (iRAP)** analyzes the investment required to achieve 75% of travel on 3-star or better roads, as shown in the table below.

Table 9

What can be achieved with >75% of travel in Belarus on 3-star or better roads for all road users by 2030

| | |
|---|--------------------------|
| Infrastructure and Speed Management Investment required | 2.81 Billion US\$ |
| Annual Investment as a percentage of GDP (2020–2030) | 0.40% |
| Reduction in road crash fatalities per year | 281 fatalities |
| Reduction in road crash fatalities and serious injuries (FSI) over 20 years | 61,850 |
| Economic Benefit | 6.36 Billion US\$ |
| Benefit Cost Ratio (BCR) | 2 |

Source: ¹ iRAP Vaccines for Roads. The Big Data Tool. <https://www.vaccinesforroads.org/irap-big-data-tool-map/>



PILLAR 3 | SAFER SPEEDS

Speed Limits and Comparison with Safe System Speed Limits – National Data (2020)

Belarus has a **National Speed Limit Law** and local authorities in Belarus **are not allowed** to modify the speed limits. Comparison of Speed Limits in Belarus to the recommended Safe System Speeds shows that **on average the speed limits are 27.5 km/h higher than recommended**.

The Enforcement of speed limits in Belarus is both **automated** and **manual** with a **self-reported score of 90%**. The **potential decrease** in fatal road crashes from enforcement of the Safe Speed Limits is estimated, on average, to be **six-fold**.

Rules limit the speed of road traffic, for violation of which the law establishes administrative responsibility (**including the deprivation of the right to drive the vehicle**). On the territory of Belarus a unified system of photo recording of speeding violations was created.

In 2011, the Republic of Belarus signed an agreement with the private sector to develop, establish and further maintain the **Automated Speed Enforcement (ASE) system**. Closed Joint-Stock Company “Safe Roads of Belarus” has been established for the project implementation. The “Safe Roads of Belarus” company acts as an operator of the ASE system. The Mol carries out administrative processes for the speed limit violations. In the framework of the project, development of the speed sensors network is ongoing including installation of control centers and payment system.

In 2012, the ASE system was established, including construction of data storage and data processing center with over 200 stationary speed control sensors and over 20 mobile speed control sensors. The piloting of equipment for the other road traffic violations has also been carried out.

Additionally, speed enforcement is done through systematic mobile controls (patrolling) and fixed speed cameras.

Table 10

Maximum Speed Limits, Recommended Safe System Speeds and the Potential Decrease in Road Crash Fatalities

| | ROADS | | | |
|--|---------------|---------------|---------------|---------------|
| | RESIDENTIAL | URBAN | RURAL | MOTORWAYS |
| Maximum Speed Limit in Belarus | 60 km/h | 60 km/h | 90 km/h | 110/120 km/h |
| Difference with Recommended Safe System Speeds ¹ | + 30 km/h | + 30 km/h | + 20 km/h | + 30 km/h |
| Potential Decrease in Fatal Road Crashes from Enforcement of Safe System Speed Limits ² | 6 times lower | 6 times lower | 3 times lower | 3 times lower |

Note: ¹ Safe System Recommended Speed Limits: Residential and Urban – 30 km/h; Rural – 70 km/h; Motorways – 90 km/h.

² Potential decrease in fatal road crashes from enforcement of safe system speed limits calculated using the Nilsson's Power Model connecting speed and road trauma. [M.H. Cameron, R. Elvik. 2010]








PILLAR 3 | SAFER SPEEDS

Speed Calming Infrastructure

To reduce speeding, Belarus has introduced traffic calming/light engineering treatments on existing and new road infrastructure. In addition to these treatments, introduction of Dynamic Speed Display Signs and 30–40 km/h zones have also been launched to reduce speed as a road crash risk factor.

Table 11

Speed Calming Infrastructure in Belarus – Presence and Brief Descriptions of Implementation

| Speed Calming Infrastructure Category | Presence in Belarus (Present/Not Present) | Brief Description/Narrative of Implementation and Results |
|--|--|---|
| Narrowing e.g., extending sidewalks, pedestrian refuges. |  PRESENT | Some roads are narrowed to reduce average speeds. |
| Vertical Deflections e.g., speed bumps, humps and tables. |  PRESENT | – Not Specified – |
| Horizontal Deflection e.g., chicanes and chokers. |  PRESENT | – Not Specified – |
| Block/Restrict Access e.g., median diverters and cul-de-sacs. |  PRESENT | – Not Specified – |
| Road Markings, Signs and Furniture e.g., colored surfacing |  PRESENT | Road markings with speed limits in newly constructed/rehabilitated road sections. |



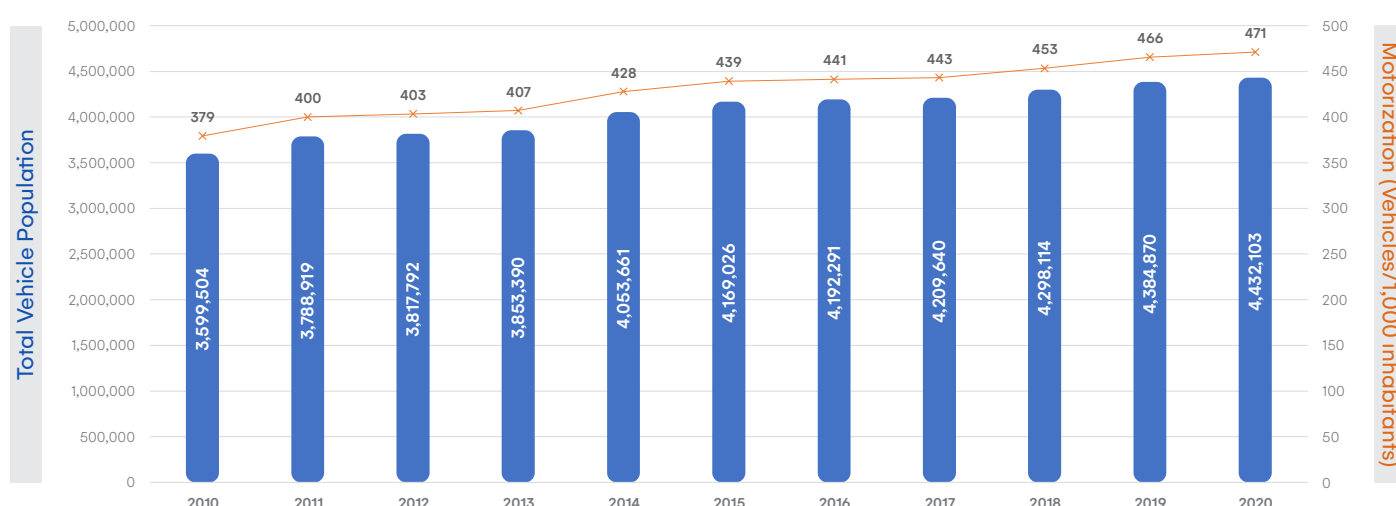
PILLAR 4 | SAFER VEHICLES

Vehicle Population and Distribution – National Data (2020)

Belarus has an up-to-date dataset of the vehicle population in the country, disaggregated into three categories (Category 1: Cars, Wheeled Light Vehicles, Heavy Trucks and Buses; Category 2 – Motorized 2/3 Wheelers and Category 3: Other Categories). The Vehicle Population in Belarus and Motorization (471 Vehicles/1,000 inhabitants) are proportional as shown in Figure 11.

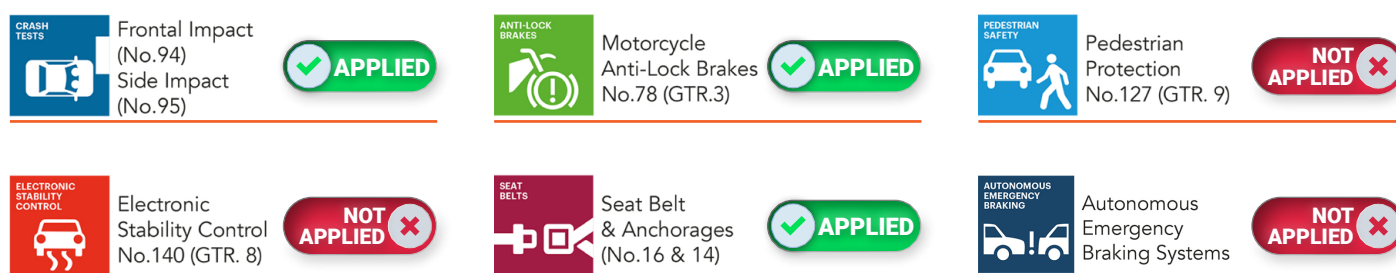
Vehicle distribution in Belarus in 2010–2020 have been comparable with **Cars, Wheeled Light Vehicles, Heavy Trucks and Buses** accounting for 84%, **Motorized 2/3 Wheelers** – 10%, and **Other Vehicle Categories** – 6%.

Figure 10 Total Vehicle Population and Motorization

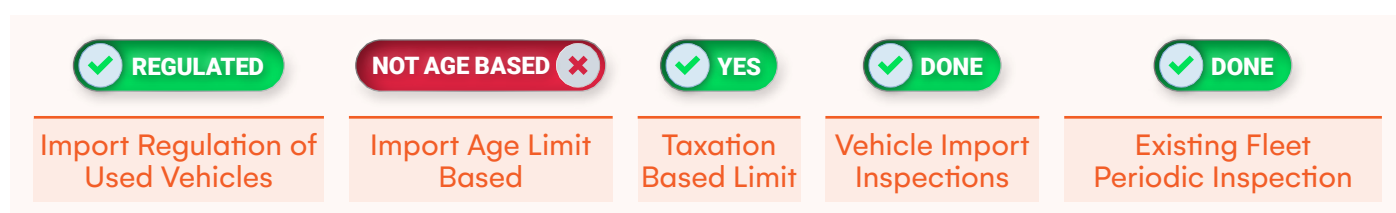


Compliance with UN Vehicle Safety Regulations – WHO Data (2018) and National Data (2020)

Compliance to the recommended Vehicle Safety Standards in Belarus is shown below:



Regulation of Imported Vehicles and Periodic Inspection of Existing Fleet – National Data (2020)





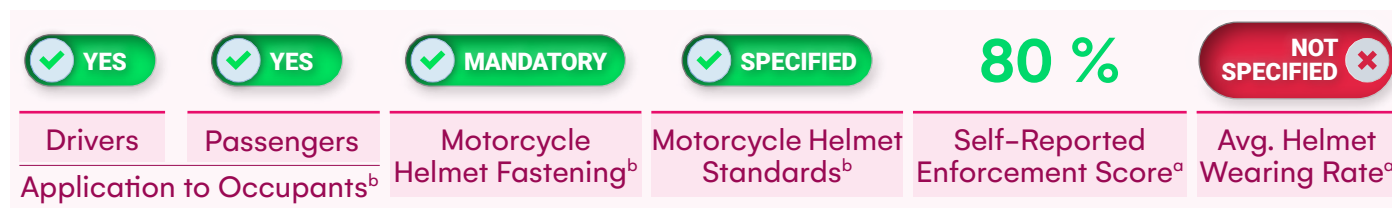
PILLAR 5 | SAFER ROAD USERS

Seatbelt Usage in Belarus – WHO Data (2018)^a and National Data (2020)^b

Belarus has an **existing National Seatbelt Law**, which applies to **all vehicle passengers**. The enforcement is done by visual inspection during periodic checks and administrative liability. Drivers and Passengers found to be breaking the law are fined 25.5 BYN and 51 – 127.5 BYN for repeat offenders (within 1-year).

Motorcycle Helmet Usage in Belarus – WHO Data (2018)^a and National Data (2020)^b

Belarus has an **existing National Motorcycle Helmet Law**, which applies to **all users of motorcycle, moped and cyclists (<12 yrs.)**. Children **passengers aged under 12 yrs.** are prohibited on motorcycles. Users found breaking the law are fined up to 25.5 BYN.

Drink Driving and Drug Driving in Belarus – WHO Data (2018)^a and National Data (2020)^b

Belarus has an **existing Drink Driving and Drug Driving Law**, which applies to the **General Population, Young/Novice Drivers and Professional Drivers**. Enforcement of drink/drug driving laws is done by **periodical driver checks, administrative and criminal liability**.

Consistent measures have been taken to tighten the responsibility of drunk drivers, including:

- » introduction of criminal liability for re-driving a vehicle while intoxicated;
- » increasing the minimum period of deprivation of the right to drive without sober movement from 1 to 3 years;
- » reduction of the permissible concentration of alcohol;
- » confiscation of a vehicle when re-driving a vehicle while intoxicated;
- » the criminal liability of drunk drivers who committed accidents with serious consequences was tightened: the maximum term of imprisonment in the case of serious bodily injury or death of a person is increased to 7 years, in the case of death of two or more persons—up to 10 years.

Since 2019, fine amount for drink driving is **1275—2550 BYN** (up to 860 EUR, approximately) with deprivation of the right to drive a vehicle for a period of 3 years. Repeated violation within the next year entails criminal responsibility. In this case the vehicle is subject to confiscation regardless of who is the owner of the vehicle (except cases when the vehicle got stolen).

In line with drink-driving similar penalties are applied to driving under the influence of drugs, psychotropic substances, toxic substances or other intoxicating substances; giving permission to drive a vehicle to the person under the influence of alcohol or drugs; and refusing from taking breath alcohol test or other tests to detect drugs.



PILLAR 5 | SAFER ROAD USERS

Blood Alcohol Concentration (BAC) Limits – g/dl

< 0.3%

General Population^b

< 0.3%

Young/Novice Drivers^b

< 0.3%

Professional Drivers^b

80 %

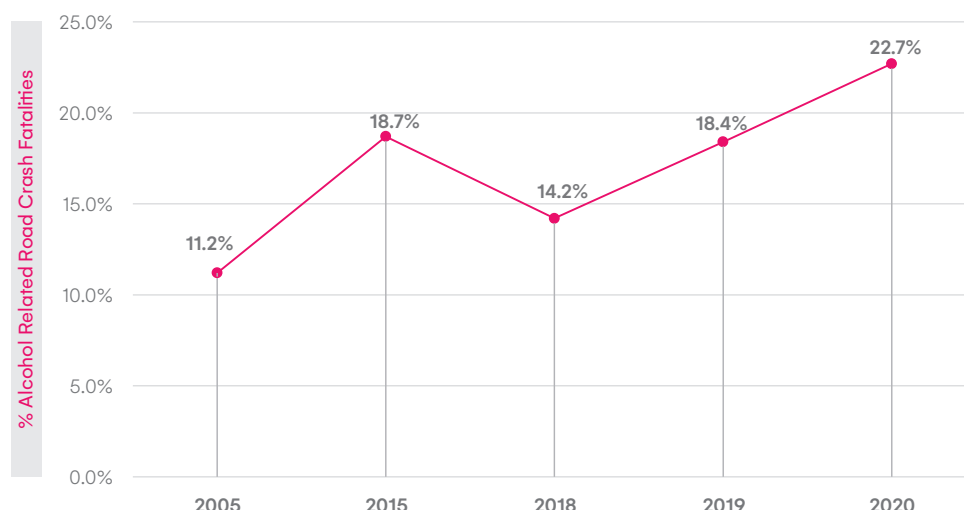
Self-Reported Enforcement Score^a

22.7 %

Alcohol Related Road Crash Fatalities^a

Figure 11

Alcohol Related Road Crash Fatalities (from National Data)

Child Restraint Usage in Belarus – WHO Data (2018)^a and National Data (2020)^b

Belarus has an **existing Child Restraint Law**, which specifies that **car seats are mandatory for all children under the age of 12 years**. As enforcement is done by **periodic driver checks and administrative liability**.

✓ 12 YRS. & BELOW

Front Seat Prohibition for Children^b

✓ CAR SEAT

Child Restraint Required^b

✓ PRESENT (2011)

Child Restraint Standards^b

80 %

Self-Reported Enforcement Score^a

NODATA ✗

Child Restraint Usage Rate^aMobile Phone Usage while Driving in Belarus – National Data (2020)^b

✓ EXISTING LAW

Laws on Mobile Phone/Communication Tool Usage while Driving^b

✓ BANNED

Ban on Hand-Held Mobile Phone Use^b

NO BAN ✗

Ban on Hands-Free Mobile Phone Use^b

51 BYN

Fine on 1st Offenders^b

Belarus has in place a graduated system of fines for repeat offenders: **51—204 BYN** if a person has been already punished for this type of violation less than a year ago; **127.5—510 BYN** with a possibility of deprivation of the right to drive a vehicle for a period of up to 2 years, if the violation has led to a road crash; **76.5—765 BYN** or **deprivation of the right to drive** a vehicle for a period of up to 2 years if the violation has led to a serious traffic injury or property damage.



PILLAR 6 | POST-CRASH CARE

National Emergency Care Access Number Coverage in Belarus – WHO Data (2018)



MULTIPLE

No. of Emergency Care Access Numbers



NATIONAL COVERAGE

Emergency Care Access Number Coverage

112 (General); 102 (Police); 103 (Ambulance)

National Emergency Care Access Numbers and their Use

Trauma Registry System in Belarus – National Data (2020)

Belarus has a trauma registry, to which hospitals are connected. Injuries are disaggregated into road crash serious and minor injuries.

Other Key Post-Crash Care Indicators – WHO Data (2018) and National Data (2020)

~ 20 MINUTES



First Responders Response time to Road Crashes

50 %

% difference with Golden Hour Response Time (10 min.)

NOT PROVIDED



Time Taken to Care Centre from Crash Scene

96 out of 100

Service Capacity and Access Score Universal Health Coverage (WHO UHC Report, 2019)



TRAINING PROVIDED

Training Given to First Responders



This publication has been produced with the assistance of the European Union.
The contents of this publication are the sole responsibility of the staff of the World Bank and can in no way be taken to reflect the views of the European Union.