ROAD SAFETY COUNTRY PROFILE

UKRAINE

WORLD BANK GROUP
Transport

EaP | Eastern Partnership

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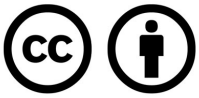

ACKNOWLEDGMENTS

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

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UKRAINE

SNAPSHOT OF KEY ROAD SAFETY INDICATORS

Country Population:	41,902,400 People
Gross Domestic Product:	137.3 Billion US$
GDP per Capita:	3,118.4 US$

Cost of Road Crash Fatalities:	773 Million US$
Cost of Road Crash Serious Injuries:	2.9 Billion US$ (Est.)
Cost of Road Crashes (% of GDP):	2.7 % of GDP

No. of Road Crashes:	168,107 Road Crashes
No. of Road Crash Fatalities:	3,541 Fatalities
Total No. of Road Crash Injuries:	31,974 Injuries
No. of Road Crash Serious Injuries:	Not Indicated*
Road Crash Fatality Rate:	8.45 per 100,000 pop.

No. of Registered Vehicles (2014):	14,433,709 Vehicles
Motorization Rate (2014):	325 vehicles/1,000 pop.

Table 1

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

* Road crash injuries in Ukraine are not dissagregated into serious and minor injuries. The estimated number of serious injuries, adjusted for under-reporting, is **53,115**[a].

Road Crash Fatalities Distribution by Gender[b]

21.8% Female Road Crash Fatalities

78.2% Male Road Crash Fatalities

Road Crash Injuries Distribution by Gender[b]

25.4% Female Road Crash Injuries

74.6% Male Road Crash Injuries

Road Crash Fatalities Distribution by Road User Groups[b]

34.5%

Pedestrians

6.8%

Cyclists

Not Indicated

Motorcyclists

51.1%

Vehicle Users

Road Crash Fatalities Distribution by Age Groups[a]

0 – 14 Yrs. **2.8%** **15 – 64 Yrs.** **81.0%** **65 Yrs. & Above** **16.2%**

Other Key Metrics

Life Years affected due to disability from road crash injuries per 100,000 people[c] **1,193 Life Yrs.**

% Trend in Fatality Rate per 100,000 pp. in the Decade of Action (2010 – 2020)[b] **–28.7%**

% Trend in Fatality Rate per 100,000 pp. (2019 – 2020)[b] **+8.6%**

Sources: [a] *15:1 ratio of serious injuries per fatality (Developed by iRAP and Adjusted by GRSF, World Bank)*
[b] *Ukraine National Data*
[c] *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

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

Basic data	Ukraine[a]	EaP average (6 countries)	EU Average (28 countries)[b]
Population	41.9 million	27.94 million	45.5 million
Area	579,400 km^2	167,499 km^2	159,848 km^2
Population density	72 inhabitants/km^2	76 inhabitants/km^2	166 inhabitants/km^2
Urban population (% of total)	69.4 %	67.4 %	75 %
Population Composition:			
Children (0 – 14 years)	15.3 % (2020)	–	15.1 % (2019)
Adults (15 – 64 years)	67.6 % (2020)	–	64.4 % (2019)
Elderly (65 years and over)	17.1 % (2020)	–	20.5 % (2019)
Gross Domestic Product (GDP) per capita (2019)	3,118.4 Current US$ (2020)	4,323.65 Current US$	65,297.52 Current US$

Sources: [a] *State Statistics Service of Ukraine: ukrstat.gov.ua*

[b] *EUROSTAT: ec.europa.eu/eurostat*

Road Safety Definitions in Ukraine

Table 3

Road Safety Definitions in Ukraine

Road Crash	an event that occurred during the movement of a vehicle, as a result of which people were killed or injured or caused material damage.
Road Crash Fatality	– Not Indicated –
Road Crash Serious Injury	the list of serious injuries is defined by para. 3 of the Classification of Injuries adopted by the Order of the Ministry of Health (MoH) №370 dated 04.07.2007.
Road Crash Minor Injuries	according to para. 4 of the Classification of Injuries adopted by the Order of the MoH № 370 dated 04.07.2007 the slight injury is an injury that is not judged to be serious and resulting in temporary disability of maximum 60 days.

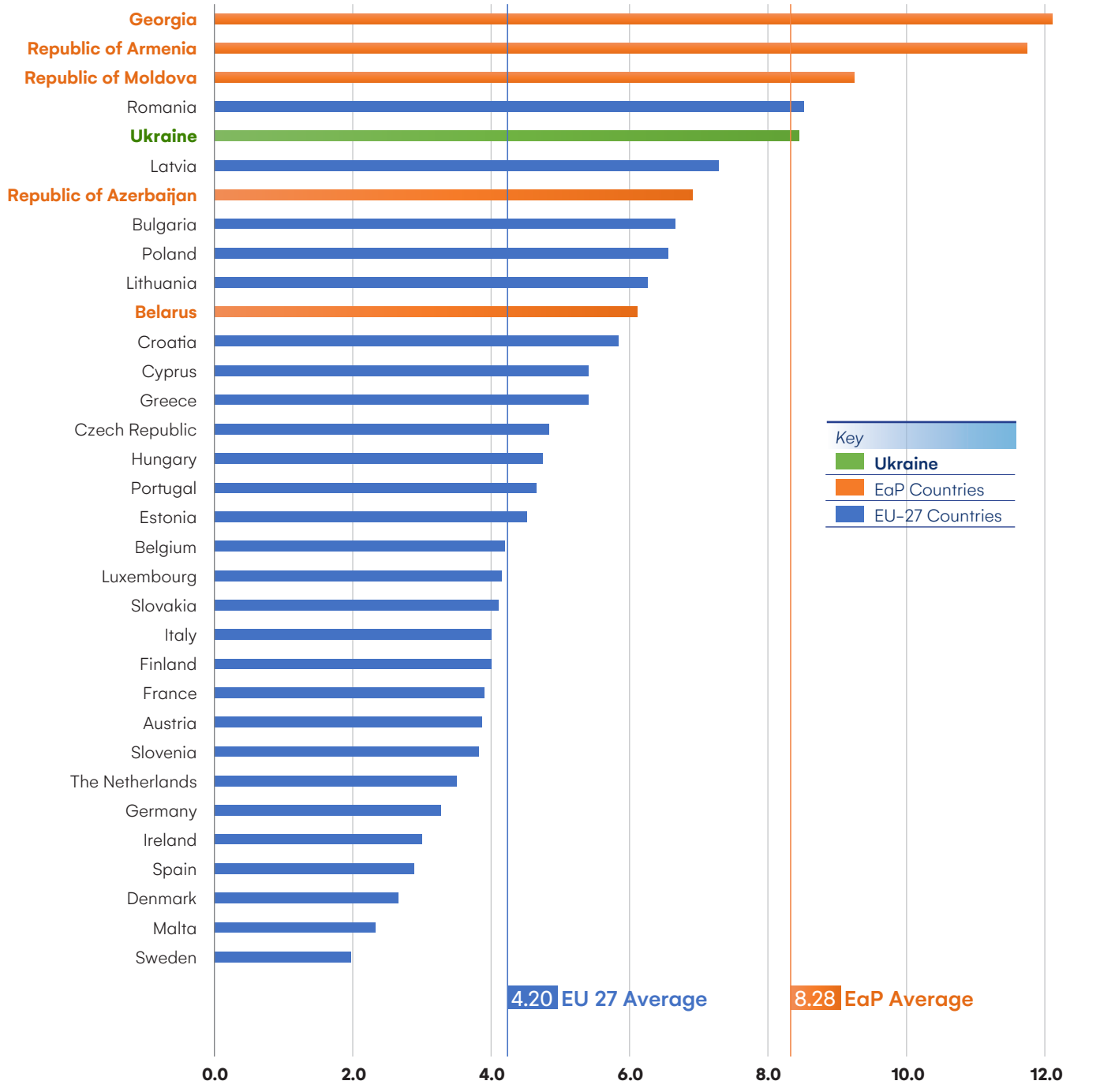
DETAILED ROAD SAFETY STATUS IN UKRAINE

General Road Safety Positioning (in comparison with European Countries)

In 2020, Ukraine recorded the 4th highest road crash fatality rate, **8.45 fatalities per 100,000 inhabitants**, registered in the EaP region. The fatality rate in Ukraine is **higher than the EaP and EU-27 average** fatality rates by **2.1%** and **50.3%**, 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 UKRAINE

Road Crash Fatalities and Injuries Analysis

In 2020, Ukraine registered an overall **increase** in the number of **road crashes (4.6%)** and **road crash fatalities (2.5%) and** a **decline** in the number of **road crash injuries (2.4%)**, 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 Ukraine is a **declining** one. Between **2010–2020**, the number of road crash fatalities per 100 000 inhabitants in Ukraine has **decreased by 28.7%**.

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

Figure 2

Road Crashes, Fatalities and Injuries in Ukraine (2008 - 2020), National Data

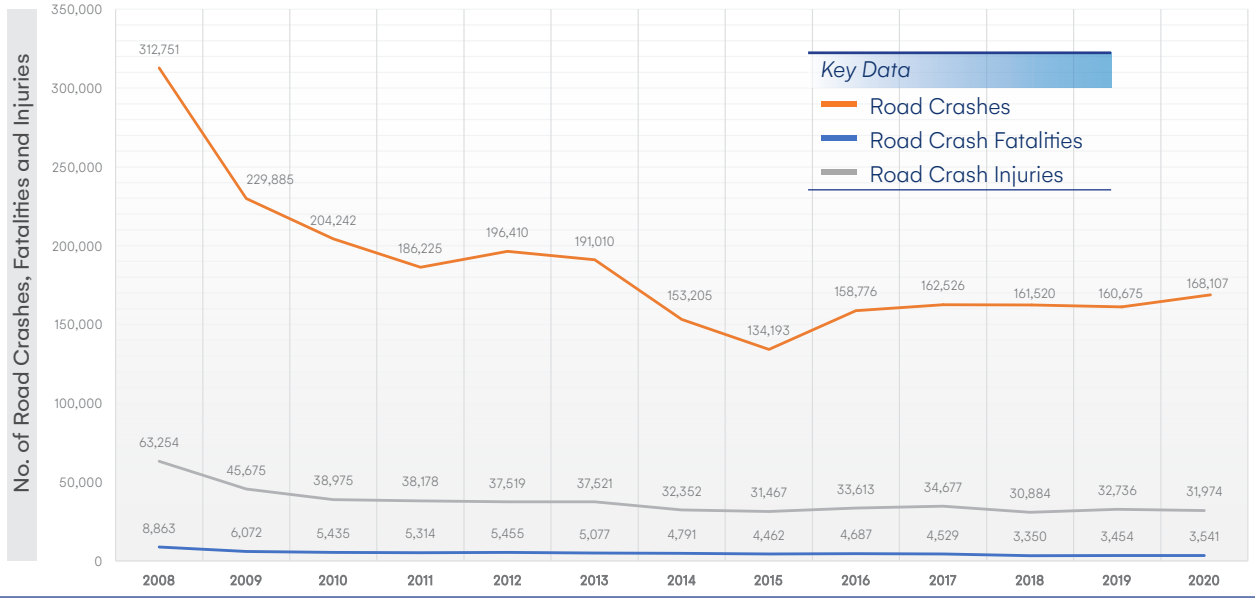


Figure 3

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

DETAILED ROAD SAFETY STATUS IN UKRAINE

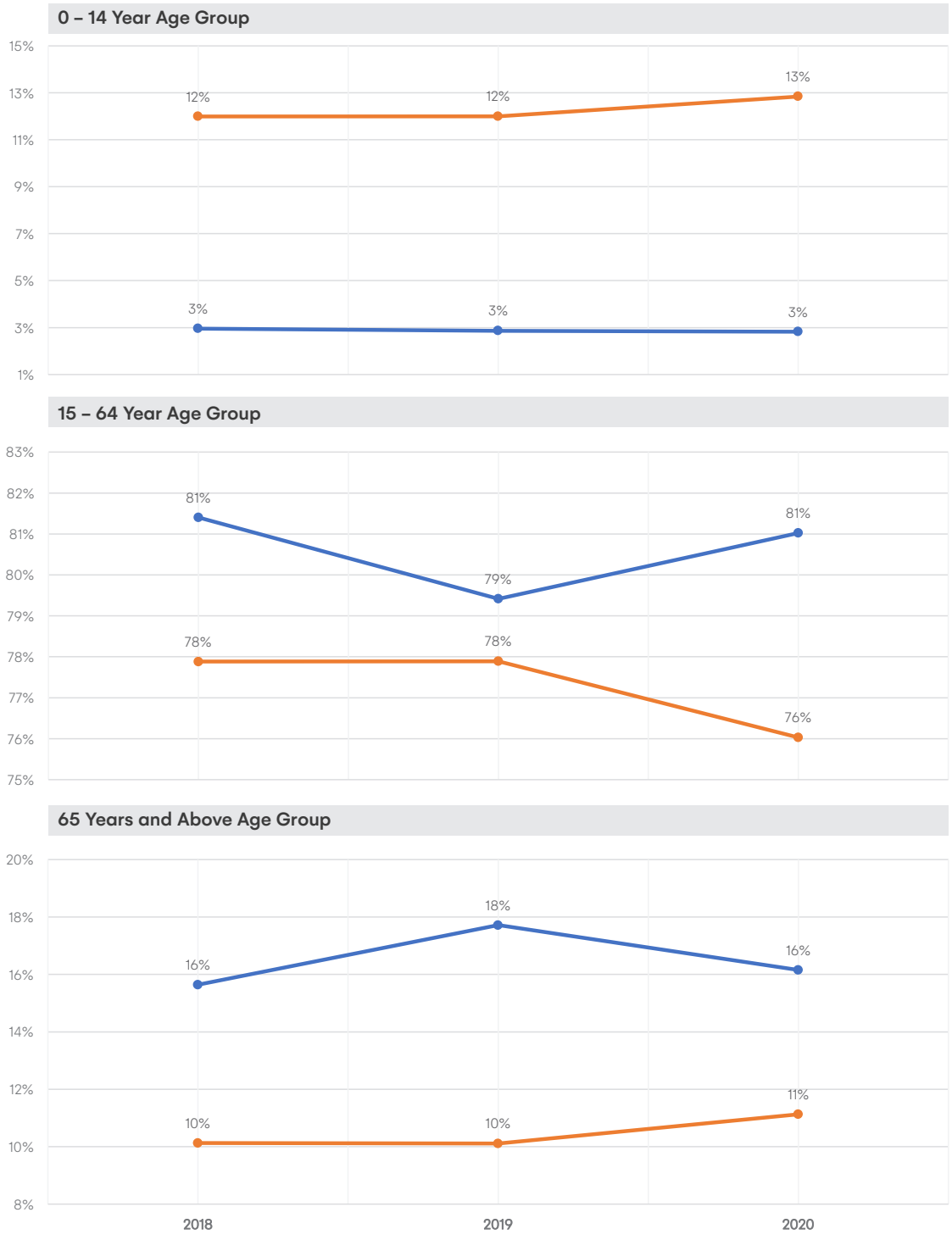
Age has a significant impact on mortality and risk of road crash fatality and injuries, thus it is recommended to investigate and control this factor. The **most significant mortality rate** due to road crashes in Ukraine is observed among population aged **between 15 and 64 Years, accounting for an average of 80% of Road Crash Fatalities and 76% of Road Crash Injuries.** Road Crash Fatalities and Injuries registered during 2018–2020 for the 0–14 Year and 65 Years & Above Age Group have incurred insignificant change.

Figure 4

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

Key Data

- Road Crash Fatalities
- Road Crash Injuries



DETAILED ROAD SAFETY STATUS IN UKRAINE

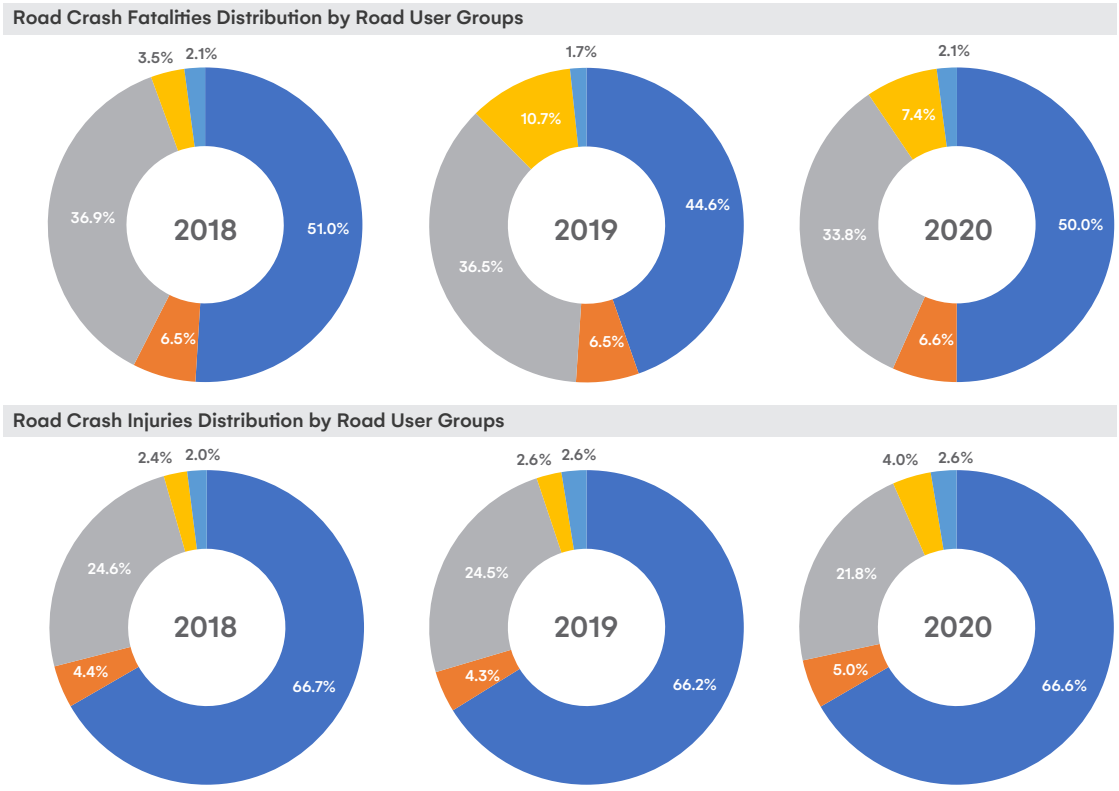
The most **Vulnerable Road Users (VRUs)** in Ukraine include pedestrians **(on average accounting for 35.7% of road crash fatalities and 23.6% of road crash injuries)** and vehicle occupants **(on average accounting for 48.5% of road crash fatalities and 66.5% of road crash injuries).**

Figure 5

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

Key

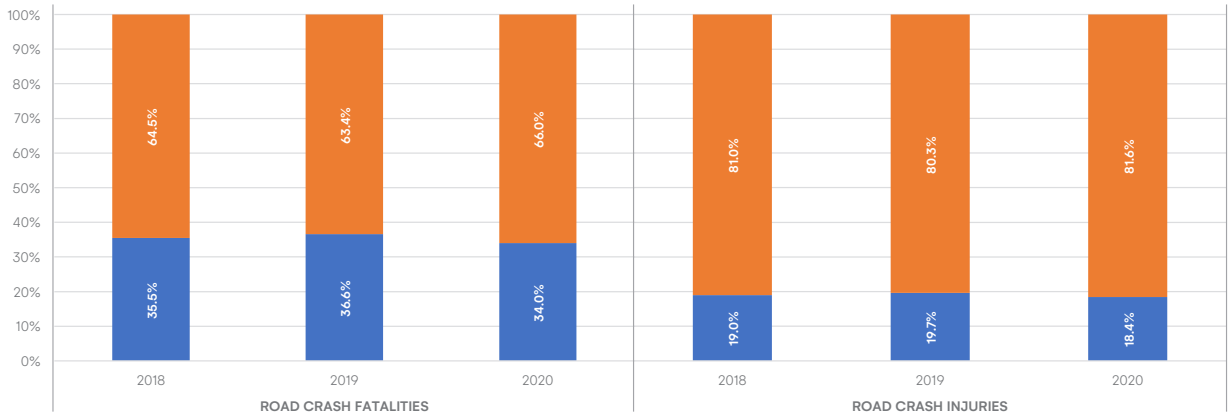
- Vehicle Occupants
- Cyclists
- Pedestrians
- Truck Occupants
- Other Categories



Ukraine has an urban population of approximately **69.4%**. National data indicate that rural areas account for more than half the total road crash fatalities and more than two thirds of road crash 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**. Data on the number of road crashes is also required to better analyze the distribution of road crashes, fatalities and injuries.

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

Key Urban Areas Rural Areas



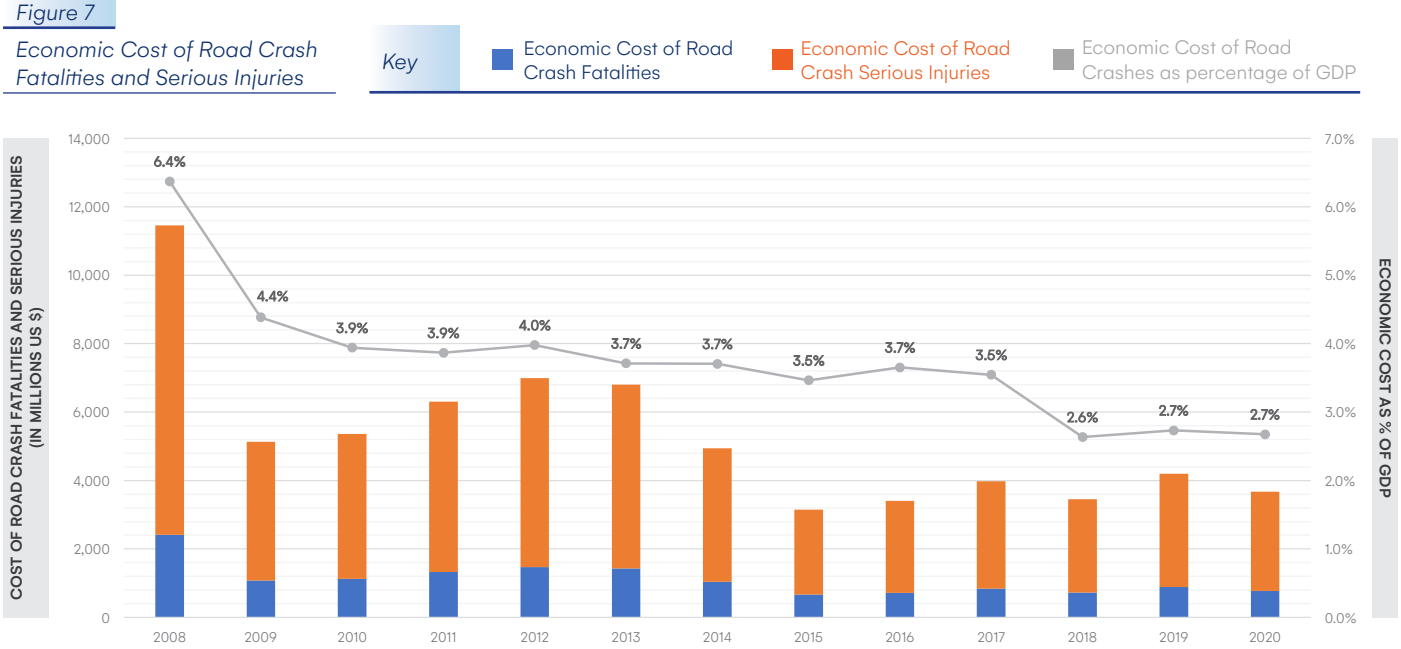
DETAILED ROAD SAFETY STATUS IN UKRAINE

Economic and Social Cost of Road Crashes Fatalities and Injuries

The Economic and Social Cost of Road Crash Fatalities and Injuries in Ukraine 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 has been **steadily decreasing (by 57.8%)** since its highest in 2008 **(6.4% of GDP)** to **2.7% of GDP** estimated for 2020.

Figure 7

Economic Cost of Road Crash Fatalities and Serious Injuries



Data Discrepancy of Road Crashes Fatalities and Injuries Data

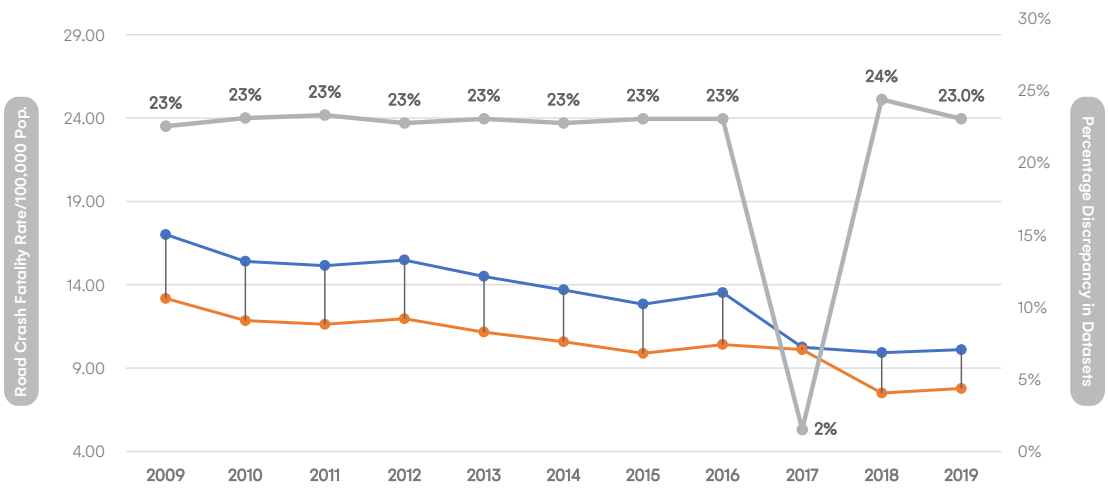
Data Discrepancy in Ukraine **reported at the national level and corrected by WHO** has been estimated at between **2–24%** in 2009–2019, showing a high level of under-reporting in the country presumably due to lack of a robust data collection system that is interlinked with hospitals, police and other actors. The data discrepancy in Ukraine is higher than the average discrepancy in the EaP and EU-27.

Figure 8

Data Discrepancy of Road Crash Fatalities in Ukraine - 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 Ukraine

Table 4 *Road Safety Institutional Framework in Ukraine*

Road Safety Function	Key Institution
Road Safety Lead Agency	The role of the lead agency responsible for road safety is shared among various Government Ministries/Departments as indicated in the list below: » **Verkhovna Rada** – adopts laws, approves the state budget, ratifies and denounces international treaties. » **Cabinet of Ministers** – Formulates and implements sector policies; Carries out public administration in the field of road safety and security; Determines the list of roads of national importance that need to be built or repaired. » **Ministry of Infrastructure** – Provides forming and realizes state policy in sphere of road transport, responsible for the strategy and implementation of state policy on safety issues on public road transport, and also for the state supervision (control) of safety on public road and city electric transport. » **Ministry of Internal Affairs** – Takes part in formulation and implementation of state policy in the field of road safety; responsible for road safety enforcement. » **Ministry of Finance** – Exercises control of the Road Fund as a special budgetary fund. Road Fund is a part of the special fund of the state budget of Ukraine, hypothecates dedicated funds to construct, upgrade, repair and maintain. The Road Fund has a dedicated budgetary line for road safety funding. » **Ministry for Communities and Territories Development** – Responsible for the development and implementation of the state policy in the sphere of construction and technical regulation in construction.
Lead Agency Funding	Ukrainian State Road Fund is a fund within the special fund of the state budget of Ukraine, which accumulates funds for the construction, reconstruction, repair and maintenance of state and local roads.
Lead Agency Functions	The list below indicates the various lead agency functions undertaken by various Government Departments: » **State Service of Ukraine responsible for Transport Safety** – implementation of state policy on safety issues on public road transport and urban electric transport. » **National Police** – responsible for general law enforcement operations, traffic policing and patrol duty. » **The State Road Agency "Ukravtodor"** – ensures the development of the road network, improving traffic safety, speed, comfort and cost-effectiveness of transportation of passengers and goods by road; improvement of transport and operational condition of roads, bridges and road infrastructure; improving the transport accessibility of rural areas. Among other tasks, it is also responsible for: • ensuring the formation and implementation of state policy in the field of road management; • organization of construction, reconstruction, repair and maintenance of public roads, appropriate engineering arrangement, road service facilities and other structures; • ensuring reliable and safe traffic on public roads, improving and ensuring the development of the road industry; • implementation of progressive design solutions, new modern materials and structures, energy and resource-saving technologies of construction, repair and maintenance of highways and bridges, new methods of organization of works and equipment. » **Local authorities** – responsible for the management of public roads of local significance within administrative / territorial boundaries; Regional state authorities develop investment and maintenance plans for roads of local importance; Distribute funds for roads of local significance; Build, repair, and maintain local roads.

PILLAR 1 | ROAD SAFETY MANAGEMENT

Table 4 Road Safety Institutional Framework in Ukraine (Cont.)

Road Safety Function	Key Institution
Road Safety Targets	Action Program of the Cabinet of Ministers of Ukraine (Resolution of the Cabinet of Ministers of Ukraine of June 12, 2020 No. 471) have the goal to reduce deaths from road accidents involving commercial vehicles by at least 50% by 2024.

Table 5 Key Actors per Road Safety Function in Ukraine

Road Safety Function	Name of Key Institution	Legal Act
Road Safety Coordination	State Secretary of the Ministry of Internal Affairs of Ukraine was appointed as Deputy Chairman of the Coordination Council for Traffic Safety	Cabinet of Ministers Decree No. 153 dated February 28th, 2018
Formulation of national RS Strategy **Development of RS Action Plan** **Development of RS Programme** **Monitoring of the RS development in the country**	The Road Safety Coordination Council chaired by the Prime Minister and involved state executive authorities within their competence	
Implementation of the RS programme	The Road Safety Working Group under the State Agency of Infrastructure Projects of Ukraine	Decision of the Road Safety Coordination Council dated April 10th, 2018
Implementation of the 5% of the Road Fund	Ministry of Infrastructure (State Agency of Infrastructure projects)	Cabinet of Ministers Decree No. 1085 dated December 20th, 2017; National Road Safety Program until 2020
Improvements in road infrastructure	State Road Agency of Ukraine (UKRAVTODOR)	
Vehicle improvement	State Service of Ukraine for Transport Safety (Ukrtransbezpeka) * commercial transport only	
Improvement in road user education	Ministry of Information Policy, National Police, Ministry of Health, Ministry of Education and Science and other involved state executive authorities	
Publicity campaigns	Ministry of Information Policy, NGOs	
Enforcement of road traffic laws	National Police of Ukraine, Department of Patrol Police	

Road Crash Data Collection System

The new police road accident database **"ARMOR"** is operational from 1st September 2016. The Government launched the update of the "ARMOR" database in line with Common Accident Data Set (CADaS). This enhancement will trigger the change and update of the current crash data form used by the Patrol police. Existing database is web and GIS oriented, but the most important data is still not available to relevant institutions and organizations. While the existing legislation does not recognize the establishment of a road safety database at the national level as well as nominating a lead entity for this kind of activity, the enhanced crash data system will have separate modules of data accessible to other key line Ministries and agencies.

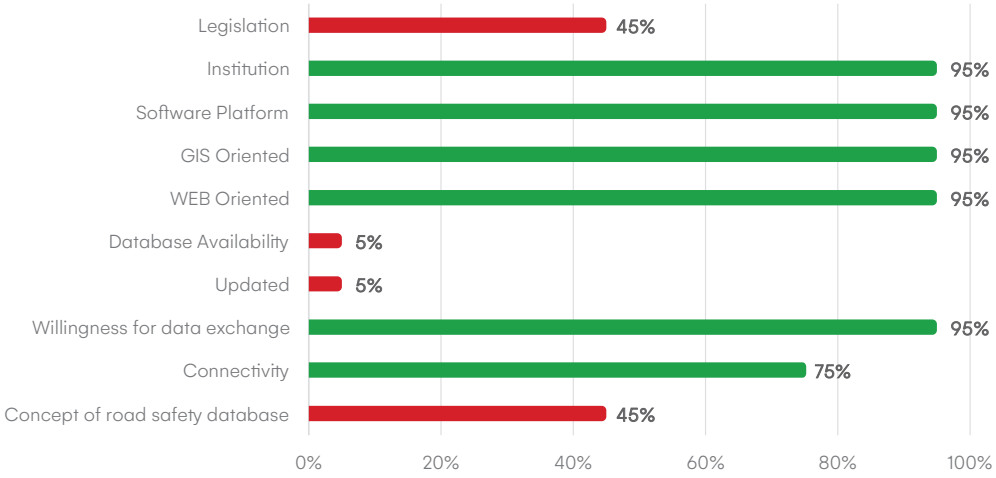
PILLAR 1 | ROAD SAFETY MANAGEMENT

While a new crash data form is proposed, this is still not in use yet. The proposed new crash data form is detailed and has enough data sets and attributes important for crash data collection. Improvement of the existing crash data collection procedure should be made by including new sets of data on: (i) types of road accidents; (ii) relation to junction/interchange; (iii) road accident location and (iv) contributory factors. The new sets of data will lead to improved road safety management. In addition, the improvement to the existent crash data system will support the State Road Agency with the implementation of the EU Directive 96/2008 on road infrastructure safety management as well as facilitate the better usage of the road safety improvement infrastructure tools: black spot management, road safety inspection and risk mapping.

The figure provides an overview of the results of the crash data system benchmarking assessment for the EaP and is based on self-reporting.

Figure 9

Crash data system benchmarking assessment for Ukraine



Road Safety Funding and Expenditure (Projects and Performance)

5% of the Road Fund is allocated to road safety improvement activities that are identified in the National Road Safety Program until 2020 (Cabinet of Ministers Decree №1085 dated December 20th, 2017). The amounts invested in road safety between 2018 and 2020 are the following:

- **2018:** 2022.9 Million UAH/61.59 Million Euro ***(0.09% of GDP)***
- **2019:** 2096.6 Million UAH/63.84 Million Euro ***(0.05% of GDP)***
- **2020:** 3167.3 Million UAH/96.44 Million Euro ***(0.05% of GDP)***

PILLAR 1 | ROAD SAFETY MANAGEMENT

Table 6 *Ongoing Road Safety Projects and Financial/Technical Assistance from IFIs*

Title	Period	Brief Objectives/Expected Outcomes	Road Safety Components
World Bank			
Road Sector Development Project	Nov. 2015 – Dec. 2021	To improve transport connectivity, maintenance operations and road safety for road users on selected sections of the national roads network and improve road network management in Ukraine.	Road Safety is included in all the three components of the project: 1. road rehabilitation and safety improvement during design and construction supervision of the road infrastructure (bridges, interchanges and bypasses); 2. road rehabilitation and safety improvement of national road corridors. 3. network management and development which will include road safety technical assistance. The project indicators used to measure the road safety components include: » reduction in road crashes involving injuries and fatalities; » roads rehabilitated with improved road safety;
European Investment Bank (EIB)			
Ukraine Urban Road Safety	2018 – 2021	» To improve road safety for drivers and, in particular, most vulnerable road users such as pedestrians and cyclists; » To decrease the indirect financial cost arising from poor road safety, and therefore positively impact the local economic development.	The TA (NIF funds) will support the EIB urban road safety loan that will finance road safety infrastructure improvements in 5 cities. Main road safety related components are, as follows: » Improvement of urban road safety for vulnerable road users in 5 major cities and, through infrastructure improvements, encouragement of walking, cycling and use of public transport. » Introduction of international best practices, development of guidelines and extensive capacity building in design and operation of safer road networks. » Improved access to stored police crash data and training of officials to analyze crash data to better understand road safety problems in their cities.

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 7

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 founds 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
RA 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 founds 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 8

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

Infrastructure and Speed Management Investment required	**3.31 Billion US$**
Annual Investment as a percentage of GDP (2020-2030)	**0.20%**
Reduction in road crash fatalities per year	**2,061 fatalities**
Reduction in road crash fatalities and serious injuries (FSI) over 20 years	**453,396**
Economic Benefit	**24.21 Billion US$**
Benefit Cost Ratio (BCR)	**7**

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 – WHO Data (2018) & National Data (2020)

While Ukraine has a **National Speed Limit Law** and local authorities in Ukraine **are allowed** to modify the speed limits for the localities. Comparison of Ukraine's Speed Limits to the recommended Safe System Speeds shows that **on average the speed limits are 25 km/h higher than recommended.**

The Enforcement of speed limits in Ukraine is not indicated but a **self-reported score of 30%** is reported in the WHO Road Safety Status Report, 2018. The **potential decrease** in fatal road crashes from enforcement of the Safe Speed Limits is estimated, on average, to be **four-fold.**

Table 9

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

	ROADS			
	RESIDENTIAL	**URBAN**	**RURAL**	**MOTORWAYS**
Maximum Speed Limit in Ukraine	50 km/h	50 km/h	90 km/h	130 km/h
Difference with Recommended Safe System Speeds[1]	**+ 20 km/h**	**+ 20 km/h**	**+ 20 km/h**	**+ 40 km/h**
Potential Decrease in Fatal Road Crashes from Enforcement of Safe System Speed Limits[2]	**4 times lower**	**4 times lower**	**3 times lower**	**4 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]*

Speed Calming Infrastructure

Table 10

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

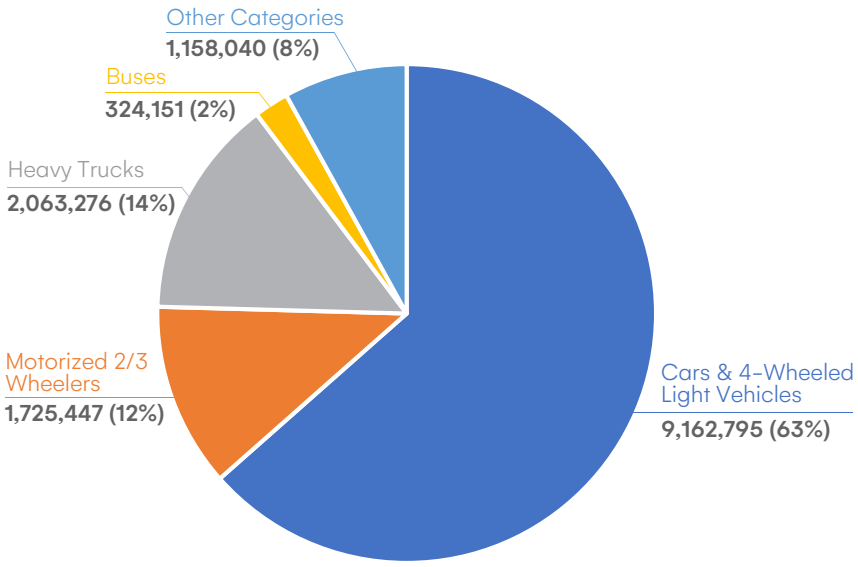
Speed Calming Infrastructure Category	**Presence in Ukraine** *(Present/Not Preset)*	**Brief Description/Narrative of Implementation and Results**
Narrowing e.g., *extending sidewalks, pedestrian refuges.*	PRESENT	Elongation of sidewalks/curb extensions has started in the cities; and on the tracks there is narrowing in some areas, or a change in reverse lanes.
Vertical Deflections e.g., *speed bumps, humps and tables.*	PRESENT	Approved the State Standard DSTU 4123:2020 "Road safety. Measures of traffic calming. General technical requirements".
Horizontal Deflection e.g., *chicanes and chokers.*	PRESENT	Roundabouts are being built in Ukraine during reconstructions and major repairs. Chicanes in Ukraine have not yet been implemented.
Block/Restrict Access e.g., *median diverters and cul-de-sacs.*	PRESENT	All Ukrainian cities have pedestrian streets. In addition, some streets are blocked for weekends, holidays or for street fairs.
Road Markings, Signs and Furniture e.g., *colored surfacing*	PRESENT	The rules of road marking are updated from time to time. Bicycle paths are marked with colored markings.

PILLAR 4 | SAFER VEHICLES

Vehicle Population and Distribution – WHO Data (2018)

Ukraine does not maintain an up-to-date dataset of the vehicle population in the country, disaggregated into various categories. The figure below shows the vehicle distribution in 2014. The motorization in 2014 was **325 Vehicles/1,000 inhabitants.** It is important for Ukraine to maintain an updated database of vehicle population in the country.

Figure 10
Vehicle Population Distribution



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

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

Frontal Impact (No.94) Side Impact (No.95) — NOT APPLIED	Motorcycle Anti-Lock Brakes No.78 (GTR.3) — NOT APPLIED	Pedestrian Protection No.127 (GTR. 9) — NOT APPLIED
Electronic Stability Control No.140 (GTR. 8) — NOT APPLIED	Seat Belt & Anchorages (No.16 & 14) — NOT APPLIED	Autonomous Emergency Braking Systems — NOT APPLIED

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

Import Regulation of Used Vehicles	Import Age Limit Based	Taxation Based Limit	Vehicle Import Inspections	Existing Fleet Periodic Inspection
REGULATED	NOT AGE BASED	NONE	DONE	NOT SPECIFIED

PILLAR 5 | SAFER ROAD USERS

Seatbelt Usage in Ukraine – WHO Data (2018)[a] and National Data (2020)[b]

Ukraine has an **existing National Seatbelt Law**, which applies to **all vehicle passengers.** The enforcement is done by visual inspection during periodic patrols. Drivers and Passengers found to be breaking the law are fined 51 UAH (approximately € 1,6).

Application to Vehicle Occupants[b]			Self-Reported Enforcement Score of Seatbelt Legislation[a]	Seatbelt Wearing Rate[a]
Drivers	Front Pass.	Rear Pass.		
YES	YES	YES	30 %	NOT SPECIFIED

Motorcycle Helmet Usage in Ukraine – WHO Data (2018)[a] and National Data (2020)[b]

Ukraine has an **existing National Motorcycle Helmet Law**, which applies to **all motorcycle and moped and users.** Children **passengers aged under 12 yrs. or 145cm in height** are prohibited on motorcycles. Users found breaking the law are fined up to 51 UAH (approximately € 1,6).

Application to Occupants[b]		Motorcycle Helmet Fastening[b]	Motorcycle Helmet Standards[b]	Self-Reported Enforcement Score[a]	Avg. Helmet Wearing Rate[a]
Drivers	Passengers				
YES	YES	MANDATORY	NOT SPECIFIED	30 %	NOT SPECIFIED

Drink Driving and Drug Driving in Ukraine – WHO Data (2018)[a] and National Data (2020)[b]

Ukraine 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 inspection by police and driver testing after fatal crashes.**

Road Users found breaking the law for the first time are fined with **10,200 UAH (approximately € 330) and get withdrawal of their driving license for 1 year**; second time offenders are fined about **20,400 UAH (approximately € 660) and get withdrawal of their driving license for 3 years.**

Blood Alcohol Concentration (BAC) Limits – g/dl				
General Population[b]	Young/Novice Drivers[b]	Professional Drivers[b]	Self-Reported Enforcement Score[a]	Alcohol Related Road Crash Fatalities[a]
< 0.2‰	< 0.2‰	< 0.2‰	50 %	7.0 %

PILLAR 5 | SAFER ROAD USERS

Child Restraint Usage in Ukraine – WHO Data (2018)[a] and National Data (2020)[b]

Ukraine has an **existing Child Restraint Law**, which specifies that **car seats are mandatory for all children under the age of 12 years or 145cm in height.** Enforcement is done by **periodic driver checks of police patrols.**

12 YRS. & BELOW	CAR SEAT	NOT SPECIFIED	20 %	NO DATA
Front Seat Prohibition for Children[b]	Child Restraint Required[b]	Child Restraint Standards[b]	Self-Reported Enforcement Score[a]	Child Restraint Usage Rate[a]

Mobile Phone Usage while Driving in Ukraine – WHO Data (2018)[a] and National Data (2020)[b]

EXISTING LAW	BANNED	NO BAN	425 UAH
Laws on Mobile Phone/Communication Tool Usage while Driving[b]	Ban on Hand-Held Mobile Phone Use[b]	Ban on Hands-Free Mobile Phone Use[b]	Fine on 1st Offenders[b]

PILLAR 6 | POST-CRASH CARE

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

SINGLE	NATIONAL COVERAGE	112 *(General)*
No. of Emergency Care Access Numbers	Emergency Care Access Number Coverage	National Emergency Care Access Numbers and their Use

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

NOT INDICATED	NOT INDICATED	NOT INDICATED
First Responders Response time to Road Crashes	% difference with Golden Hour Response Time (10 min.)	Time Taken to Care Centre from Crash Scene

79 out of 100	NOT INDICATED
Service Capacity and Access Score Universal Health Coverage *(WHO UHC Report, 2019)*	Training Given to First Responders and Trauma Registry System

DECADE OF ACTION FOR
ROAD SAFETY
2021 - 2030

SUSTAINABLE DEVELOPMENT GOALS

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