International Transport Forum

BENCHMARKING ROAD SAFETY IN LATIN AMERICAN COUNTRIES

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Joint ITF/FIA/OISEVI Project on Road Safety Benchmarking in Latin America

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OECD

Participating countries

Argentina
Brazil
Chile
Colombia
Costa Rica
Cuba
Ecuador
Mexico
Paraguay
Uruguay

Co-operation: OISEVI www.oisevi.org

Objective of the project

Benchmarking road safety performances and developments of ten Latin American countries.

The main outcome of this project is an assessment of strengths and weaknesses of each country and the identification of areas deserving policy attention and where the experiences of other countries may be usefully applied.

The project started in 2015 and is now on a final stage. The work was organized according to the following **tasks**:

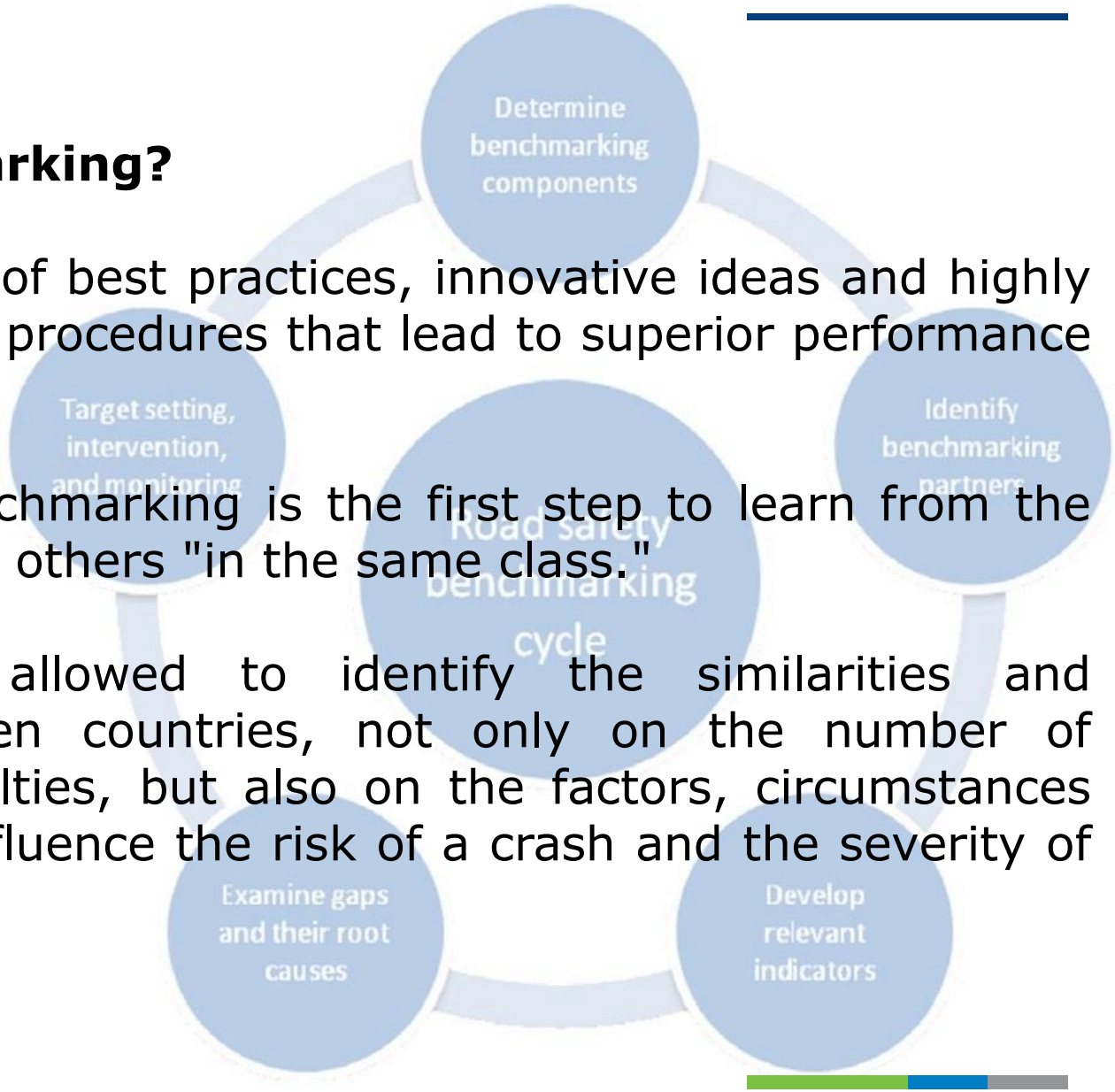
1. Definition of the **methodology** for benchmarking road safety in Latin America
2. Definition of relevant **indicators** and **collection of data**
3. Identification of **strengths and weaknesses** of each country through benchmarking
4. Understanding and interpreting the **differences between countries**
5. Draw **conclusions** on the best practices and successful factors and suggest **recommendations to each country**
6. **Present the results of the study** to the ten countries

What is Benchmarking?

Systematic search of best practices, innovative ideas and highly effective operating procedures that lead to superior performance study

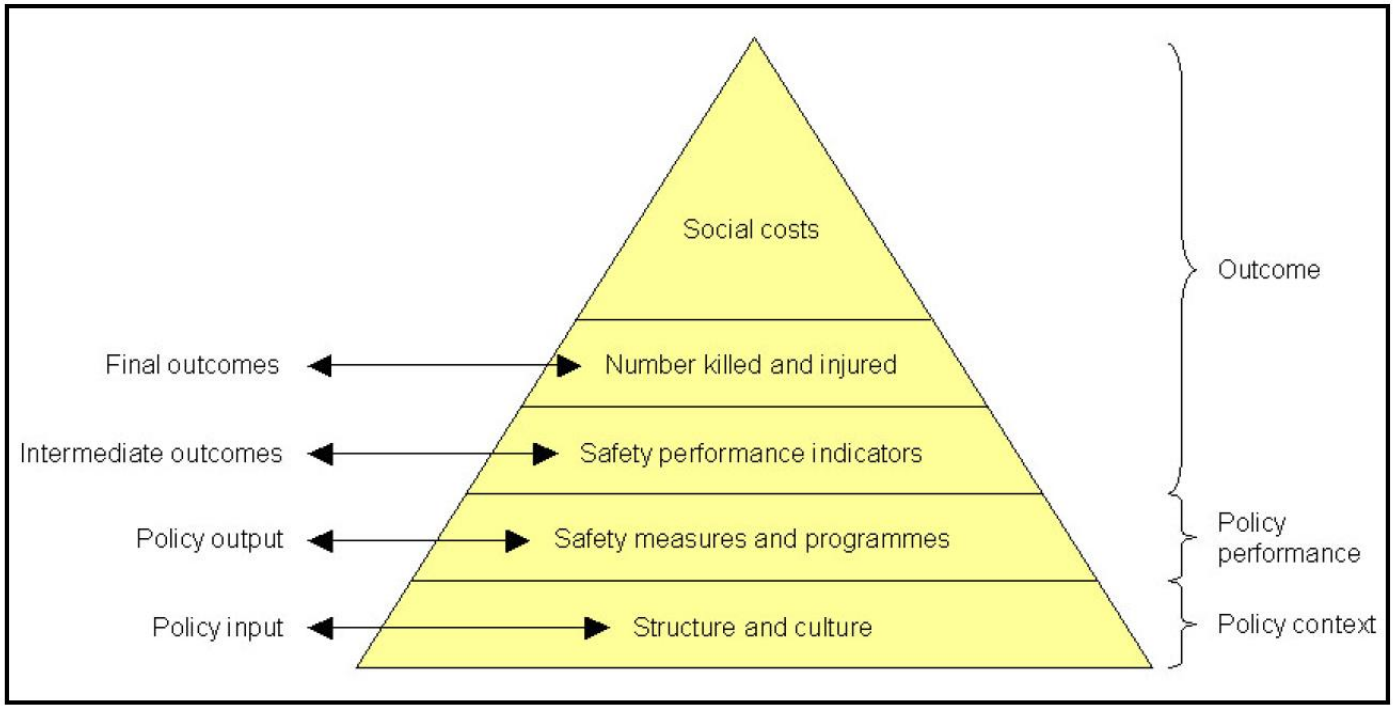
In this sense, Benchmarking is the first step to learn from the results obtained by others "in the same class."

The comparison allowed to identify the similarities and differences between countries, not only on the number of crashes and casualties, but also on the factors, circumstances and events that influence the risk of a crash and the severity of its outcome.



See also: https://www.itf-oecd.org/methodology-benchmarking-road-safety-latin-america

The **Methodological approach** is based on the hierarchy of road safety proposed in the Sunflower projects:

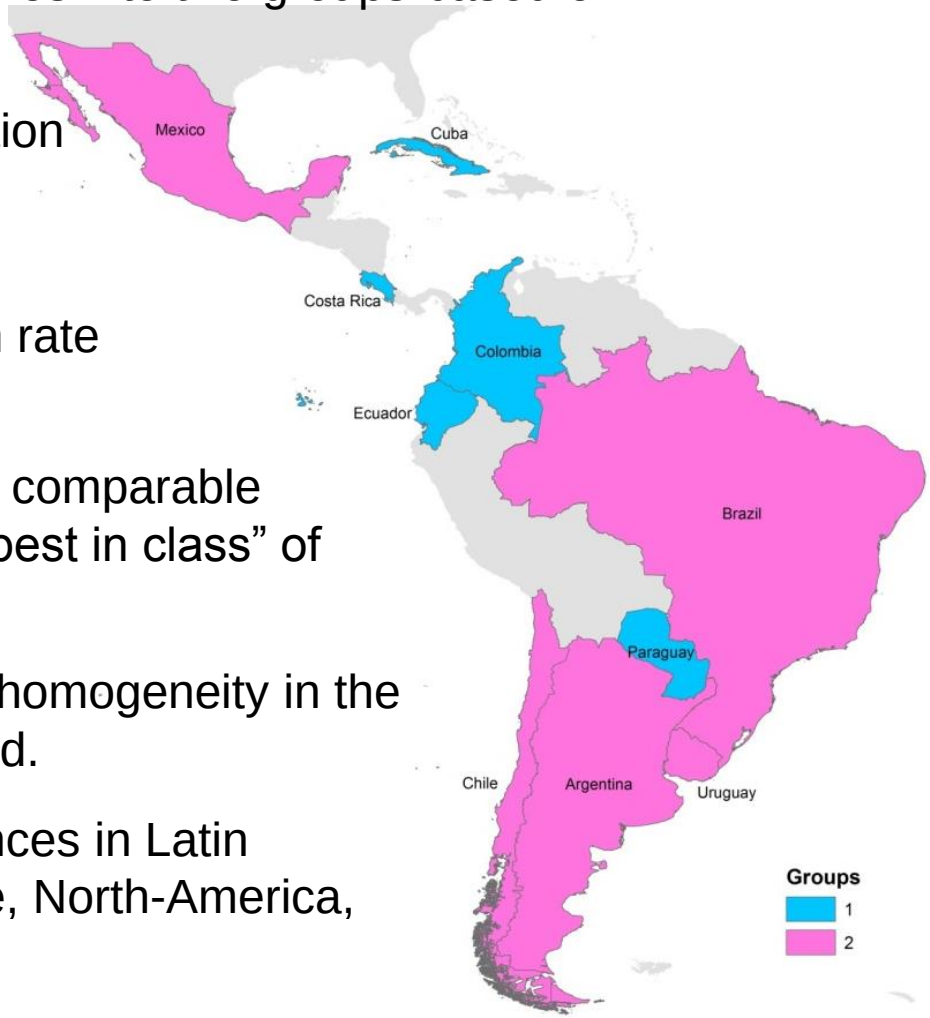


https://www.swov.nl/rapport/sunflower/sunflower.pdf
http://www.20splentyforus.org.uk/UsefulReports/SUNflower+6_Final_Report.pdf
http://www.swov.eu/rapport/sunflower/sunflowernext.pdf

Initial country grouping proposal

The study began by dividing the ten countries into two groups based on:

- population density
- geographical distribution of the population (urban / rural areas):
- level of motorization
- mortality rate in relation to motorization rate



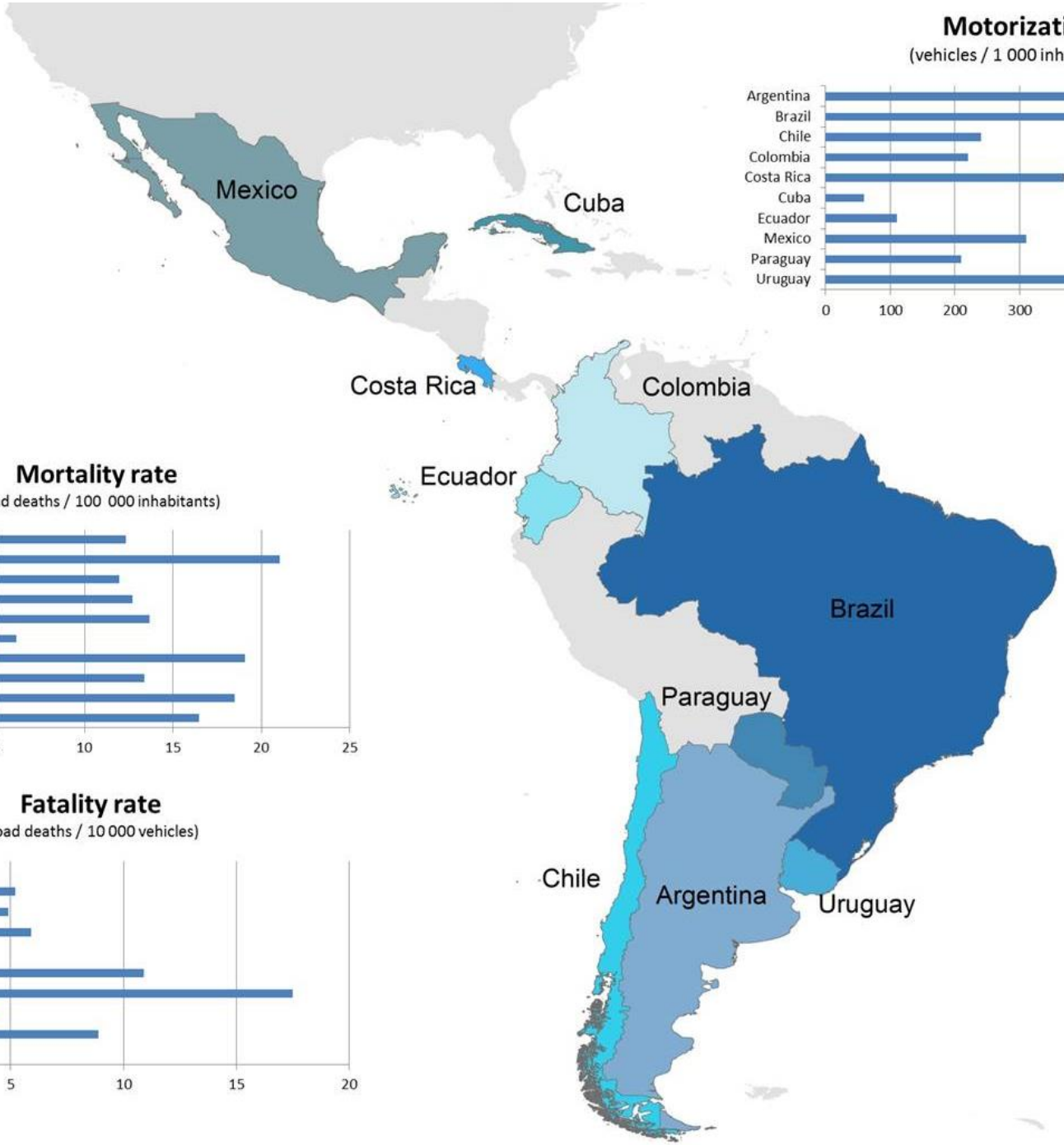
The idea behind grouping countries is that comparable countries can more easily learn from “the best in class” of their own group.

However, due to lack of data and too little homogeneity in the results, this approach had to be abandoned.

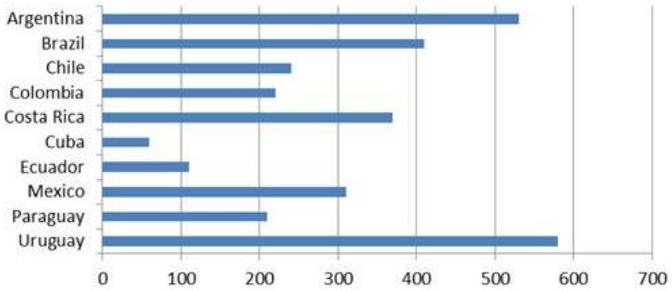
The alternative was to compare performances in Latin America also with performances in Europe, North-America, Australasia.

To undertake this analysis, **data and information** have been **collected and analysed** in the following areas:

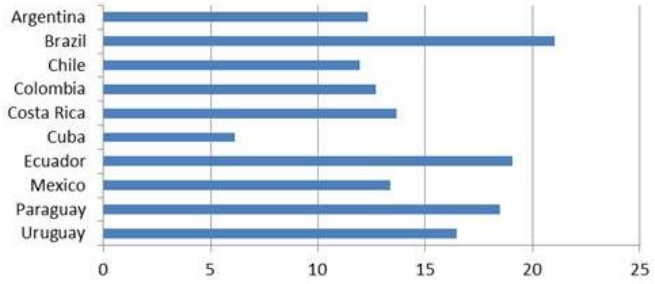
- road safety policy and organisation
- general data on the road transport system
- road crashes and casualty data, and traffic and road safety trends
- case studies on key road safety areas:
  - pedestrians
  - powered two-wheelers
  - drink and driving
  - speed
  - seat belts and child restraint use
  - trauma management



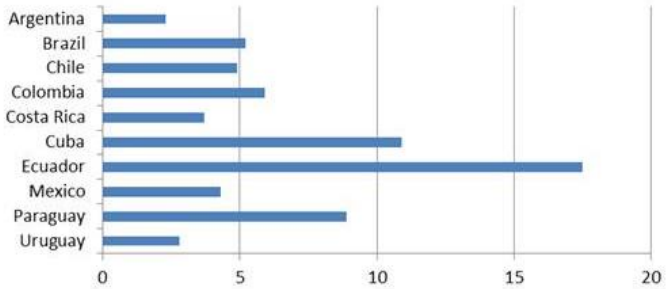
Motorization
(vehicles / 1 000 inhabitants)



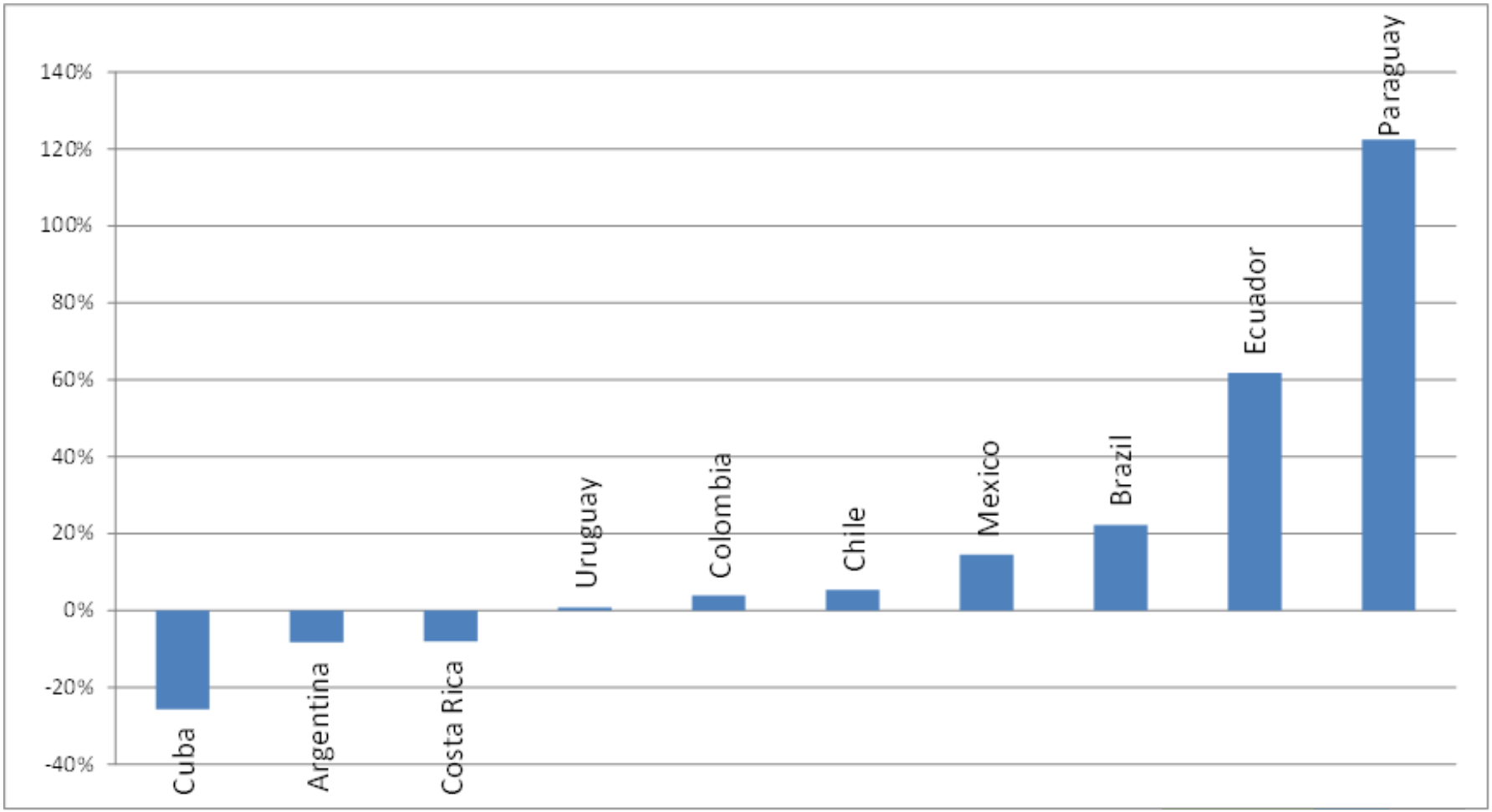
Mortality rate
(road deaths / 100 000 inhabitants)



Fatality rate
(road deaths / 10 000 vehicles)



FATALITIES EVOLUTION
Percentage change in reported fatalities 2001-15



(Argentina 2008-14, Costa Rica 2001-13, Paraguay 2004-15, Ecuador 2001-13)

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Some results

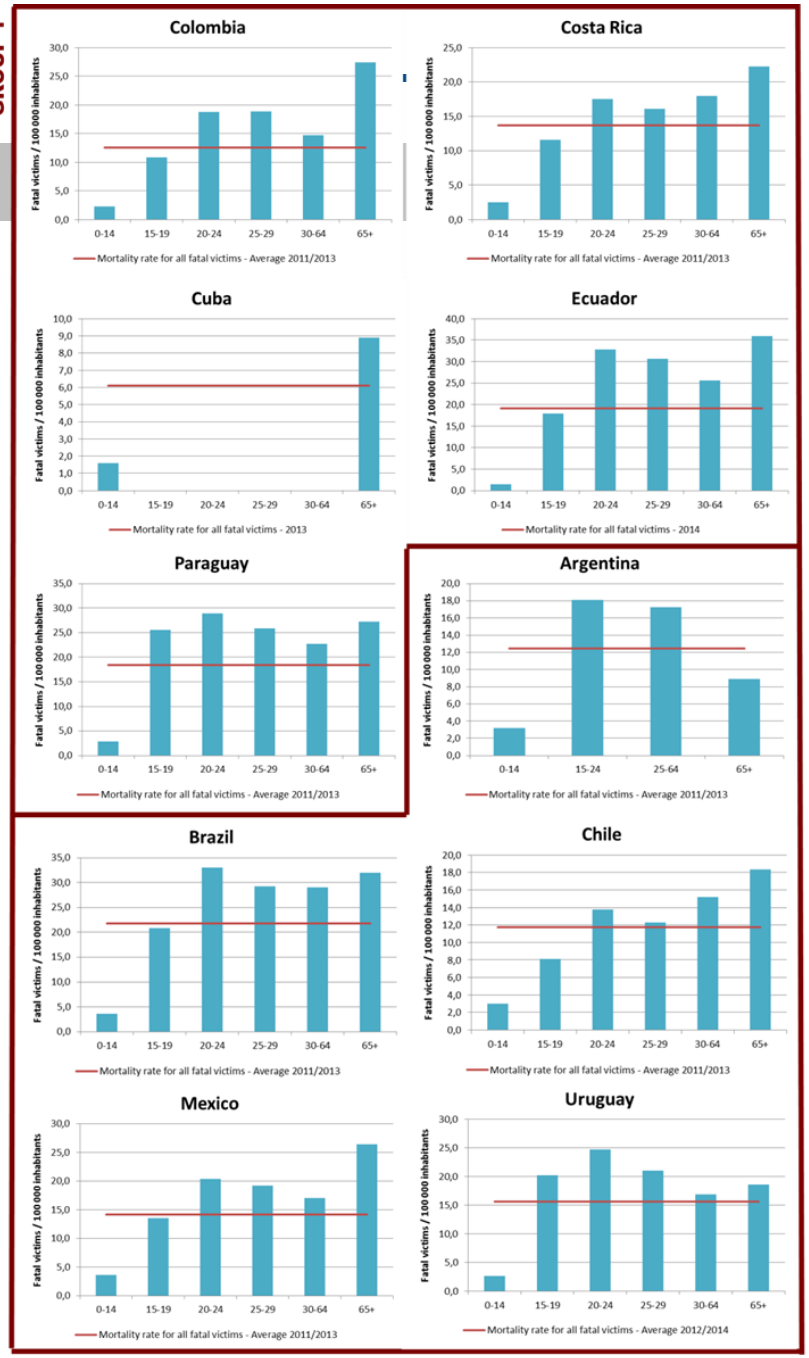
Population and mortality rates

Almost all countries present a relatively high proportion of young population and a relatively small proportion of the older citizens.

This is important to take into consideration, as young driver safety, is a priority area in many countries due to their higher risk of injury.

Although in a smaller proportion, older citizens are presenting a very high mortality rate in most of the countries which should be taken into account.

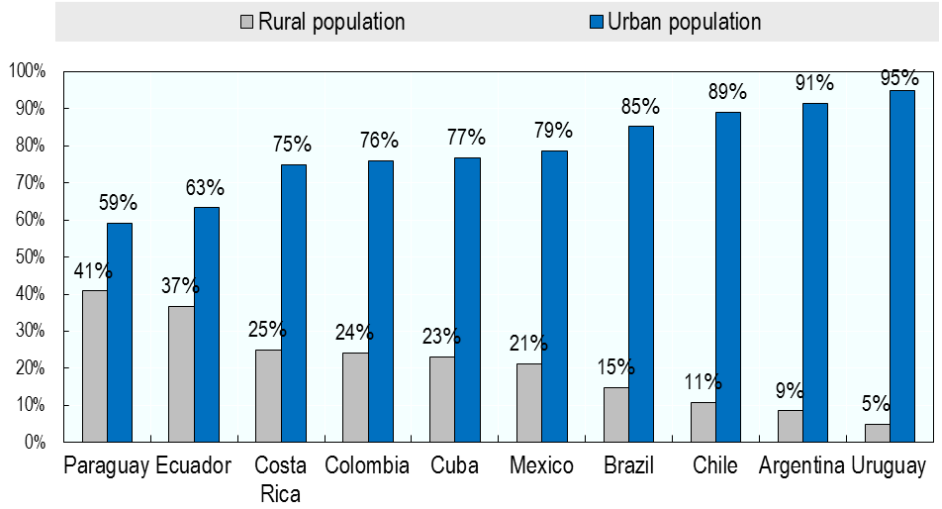
Some countries need to review their license and enforcement system in order to overcome this problem.



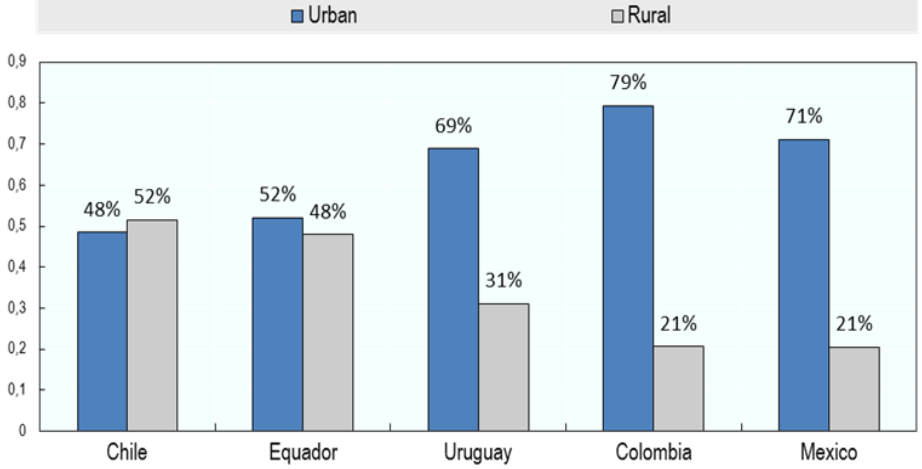
Mortality rate by age group, Average 2011/2013

Some results

Proportion of urban and rural population, 2013



Distribution of fatal pedestrian crashes according to road environment, (%) in 2013



Urban areas

More than 50% of the population lives in urban areas (more than 90% in Chile, Argentina and Uruguay) and there is a rapid rate of urbanisation.

Additional efforts are necessary to integrate safety within urban transport systems, promoting safe public transport, and safe pedestrian movements in several areas like speed management, infrastructure, and land-use planning.

Some results

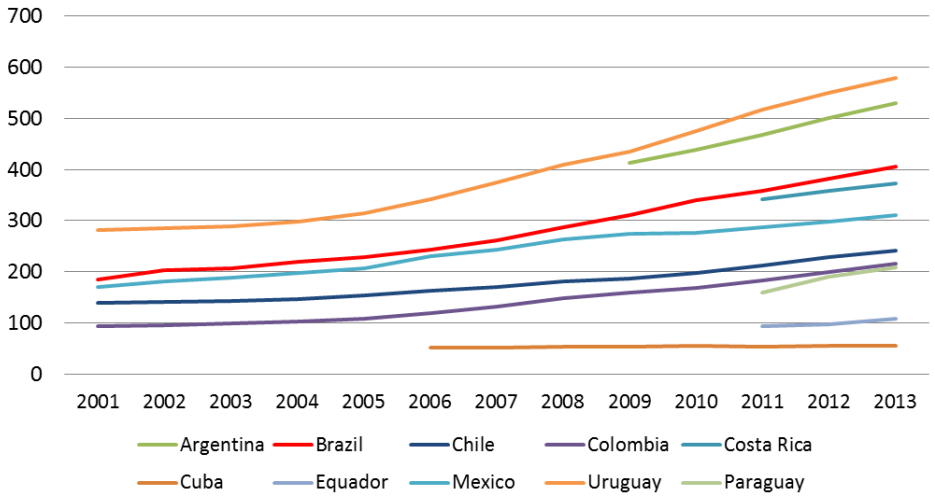
Increasing motorization

The rate of motor vehicles to population has been increasing in all countries at an annual average rate in the range of 4-7%.

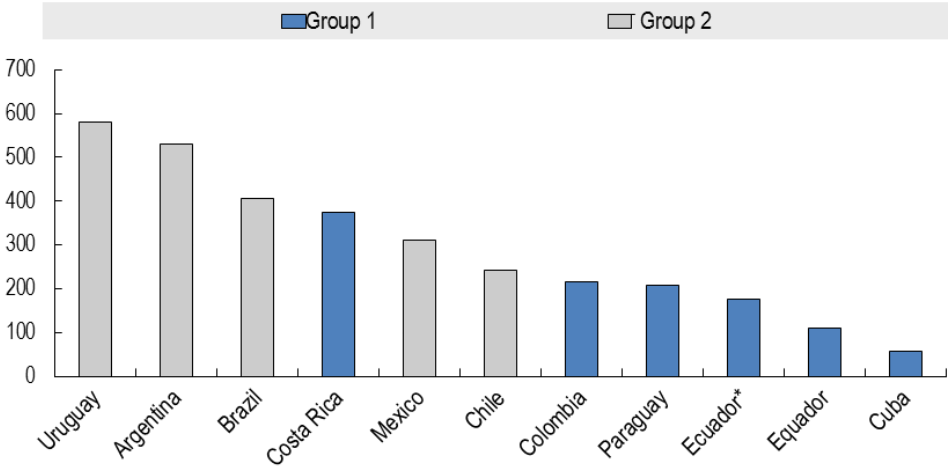
Some countries are much more highly motorized than others, but there are some concerns about the reliability of vehicle registration data particularly in Paraguay and Ecuador.

This leads to an increasing exposure to risk, particularly with a substantial increase in the number of motorcycles.

Motorization rate evolution

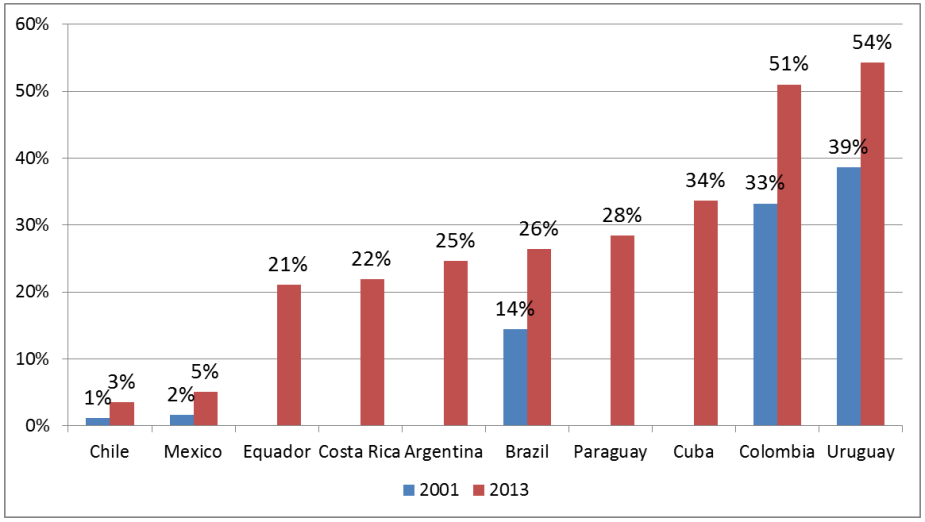


Motorization rate, 2013

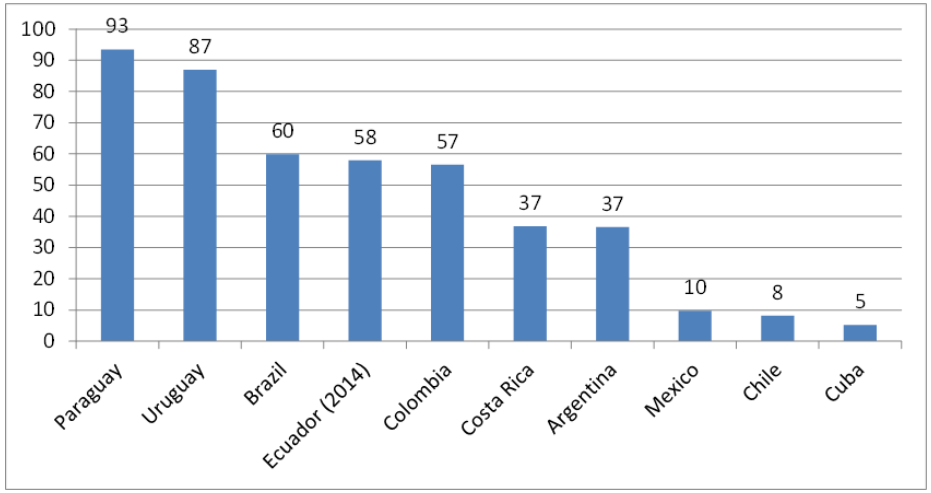


Some results

Share of motorcycle in the vehicle fleet



Number of motorcyclists killed per million inhabitants



Motorcycle safety

A strong increase of motorcycle's fleet was observed. Their users are running a relatively high risk in most of the countries.

This is a particular problem in Colombia, Uruguay and Paraguay, where motorcyclists comprise 44%, 51% and 53% of fatalities.

In some countries poor public transport is given as a reason why people decide to buy and ride a motorcycle.

Main findings

Drink and driving

There is little comparable information on the prevalence of drivers above the legal limit, the share of alcohol related crashes and the level of enforcement.

All countries have set a maximum blood alcohol content and have the legal framework for Police to enforce these laws, and Courts to administer sanctions.

Official figures suggest that the percentage of fatal crashes under the influence of alcohol is lower than 10% but we have strong indication of underreporting.

Main findings

There is not enough data to clearly quantify the situation with respect to speeding in Latin America countries.

However, the data that is available suggests there is a massive speeding problem across all speed limits, but particularly so in urban areas. Strict Police enforcement is needed in all countries.

All countries have speed limits for all roads, but without more information it is impossible to assess if speed limits are adequate for each road and traffic conditions.

For urban settings a default speed limit should be 50 km/h and 30 km/h zones should be promoted near residential/school areas. Higher speed roads can only be considered where motorised and non-motorised users are provided separate facilities.

Speed

Some results

Road safety leadership

A strong management focused in all aspects of road safety is required to produce road safety outcomes, namely:

- a well resourced and mandated lead agency with budget and skilled staff
- effective co-ordination among the various stakeholders and clear definition of roles
- a solid regulatory framework
- adequate funding
- a national long term road safety strategy, backed up by road safety plans with interim targets
- regular reporting.

Country	Agencies responsible for road safety at national / federal level	Lead Agency	Date of creation
Argentina	ANSV (Agencia Nacional de Seguridad Vial)	Yes	2008
Brazil	DENATRAN (Departamento Nacional de Trânsito)	**No**	-
Chile	CONASET (Comisión Nacional de Seguridad de Tránsito)	Yes	1993
Colombia	ANSV (Agencia Nacional de Seguridad Vial)	Yes	2013
Costa Rica	COSEVI (Consejo de Segurida Vial)	Yes	1979
Cuba	CNSV (Comisión Nacional de Seguridad Vial)	**No**	-
Ecuador	ANT (Agencia Nacional de Transporte)	Yes	-
Mexico	CONAPRA (Consejo Nacional para la Prevención de Accidentes)	**No**	-
Paraguay	ANTSV (Agencia Nacional de Tránsito y Seguridad Vial)	Yes	2014
Uruguay	UNASEV (Unidad Nacional de Seguridad Vial)	Yes	2007

Some findings

- General recommendations are complemented with specific recommendations per country
- Data is a critical issue for policy making and we have identified the areas that need improvement for each one of these countries
- OISEVI may have an important role in overcoming the data needs of Latin America countries

Recomendations

1. Assessment of road safety management capacity
2. Strenghten/creation of a national lead
3. Improvement/Development of an adequate national road safety strategy
4. Improve road safety data systems and research
5. Enhance enforcement efforts
6. Seriously address the issue of drink
7. Lift rates of seatbelt wearing and CRS
8. Improve the safety of motorcycles,
9. Give priority to pedestrian safety needs
10. Improve knowledge on infrastructure safety performance
11. Develop intervention plans for post-crash management

Thank you

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