Capacity Building on Maximum Abbreviated Injury Scale (MAIS)3+

WBRSO meeting, Belgrade June 21, 2024

Introduction to MAIS3+

Add Mark´s slides. No country names in them ☺

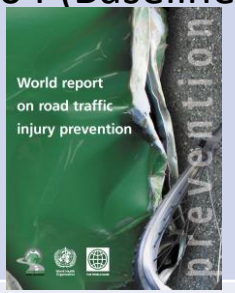
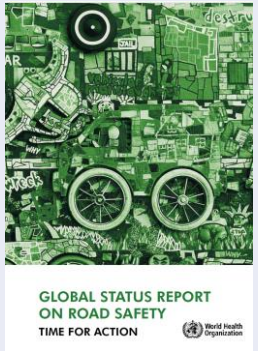
Global status report on road safety 2023 –lessons learnt on the non-fatal injury counts

Maria Segui-Gomez

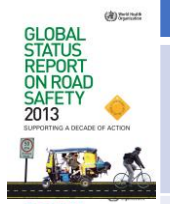
Global status report on road safety 2023

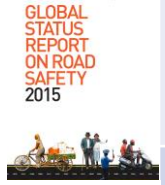
World Health Organization

Background on country-level non-fatal injury WHO data collection

WHO reports	Qualifier	Reported numbers
2004 (Baseline) 	No country level data collected or published	"Between 20 million and 50 million people sustain an injury as a result of motor vehicle crashes each year" (Source: The Global Burden of Disease 2000 project: aims, methods and data sources [revised] Geneva, WHO, 2001 (GPE discussion paper No. 36) It cites AIS, and ICD already (page 59)
GSRRS 2009 	Country level data for 178 participating countries or territories, but no recorded non-fatal or permantly disabled injuries published data. (*Need to enter numbers manually from country profiles*!)	"Between 20 and 50 million suffer non-fatal injuries" (Executive summary) "A few countries employ hospital staff to code injuires when the patient is discharged from care –using a standardized scoring method such as the Abbreviated Injury Scale, Injury Severity Score of the International Classficiation of Diseases codes –and then link these data to pólice/transport databases" (page 31) "There is a need for standard definitions of levels of severity of non-fatal injuries to allow them to be accurately recorded and collated. The definitions should be simple enough to be administered by both health and non-health personnel" (page 32)

Background on country-level non-fatal injury WHO data collection (II)





WHO reports	Qualifier	Reported numbers
GSRRS 2013	Country level data, % seriouly non-fatal victims transported by ambulance reported by 162, and permanently-disabled reported by 33 (out of 182)	“another 20 to 50 million sustain non-fatal injuries” (Background)
GSRRS 2015	Country level data, % seriouly non-fatal victims transported by ambulance reported by 169, and permanently-disabled reported by 34 (out of 180)	“up to 50 million” (Background)
GSRRS 2018	Country level data, but % seriouly non-fatal victims transported by ambulance not reported (saved?), whereas estimated permanent disability reported by 28 (out of 175 participating).	none
GSRRS 2023	Country level data, non-fatal reported by 107, and permanently-disabled reported by 16 (out of 172 participating)	Not reported, but non fatal injuries add up to 2 079 370 (reported fatal to non-fatal of 1:3) and % disabled ranges from 1 to 100%

Challenges remain

Producing a global morbidity figure for road traffic crashes is challenging, because around a third of countries report no measure for nonfatal cases, while the other two thirds report using a variety of operational definitions. Only 114 countries report having a specific definition for injuries that result from a road traffic crash. More than half of these countries (57%) use either the need for hospitalization as the operational definition (or hospitalization plus another condition) or require three or more days of leave from work. The next most common definition used by more than 10% of countries relates to standardized injury definitions such as the Maximum Abbreviated Injury Scale (MAIS) *(39)*, the Revised Trauma Score (RTS) *(40)*, or the Mechanism/Glasgow Coma Score (Age/Pressure (MGAP) *(41)*. The remaining countries report using a variety of definitions.

30%

Countries do not collect any data on non-fatal injuries

In more detail --zoom in at WBRSO

Regional Partners

- Albania
- Bosnia and Herzegovina
- Kosovo* (not participated in GSRRS2023)
- Montenegro
- North Macedonia
- Serbia

Observing participants

- Georgia
- Republic of Moldova
- Ukraine (not participated in GSRRS2023)

* This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICK Opinion on the Kosovo declaration of independence

Do strategies set measurable targets to reduce the number of people who are killed and /or seriously injured in a road traffic crash?

		Targets	Fatality target	Seriously injured target	Seriously injured target (year)
Regional partners	Albania	No	No	No	N/A
	Bosnia and Herzegovina	Yes	N/A	Yes	50% (N/A)
	Kosovo	No GSRRS 2023 participation			
	Montenegro	Yes	Yes	Yes	5% (2020-2022)
	North Macedonia	Yes	Yes	Yes	40% (2022-2030)
	Serbia	Yes	Yes	Yes	50% (2030)
Observing participants	Georgia	Yes	Yes	Yes	25% (2019-2025)
	Republic of Moldova	N/A	Do not know	Do not know	N/A
	Ukraine	No GSRRS 2023 participation			

Identifying “serious” injuries

		Have a system	Requires hospital admission	Requires standard measure (e.g., MAIS, RTS, MGAP)	Requires absence of work 3+days	Requires other
Regional partners	Albania	Yes	Yes			
	Bosnia and Herzegovina	N/A				
	Kosovo	No GSRRS 2023 participation				
	Montenegro	Yes		Yes		Yes (judicial textbook)
	North Macedonia	Yes	Yes		Yes	
	Serbia	Yes				Yes (ICD and expert assessment at hospital)
Observing participants	Georgia	No				
	Republic of Moldova	Yes	Yes	Yes		
	Ukraine	No GSRRS 2023 participation				

Reporting “serious” injuries (2021)

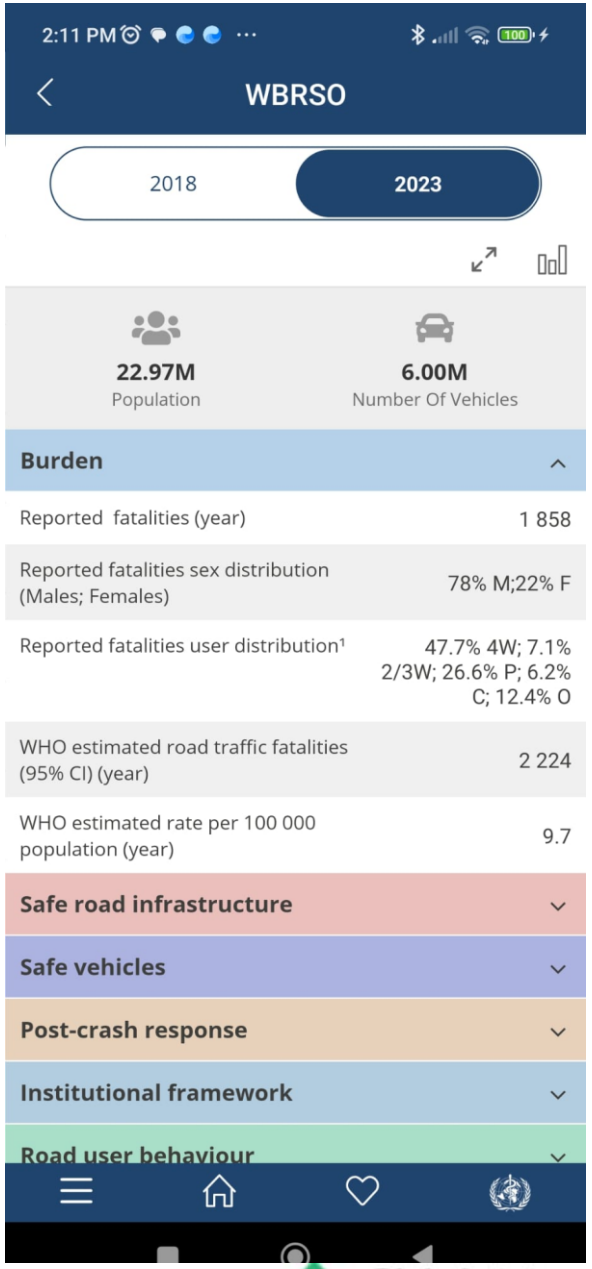
		Number	Source: Police records	Source: Hospital records	Source: ER records	Source: Other (insurance, other)
Regional partners	Albania	253	Yes			
	Bosnia and Herzegovina	1471	N/A	N/A	N/A	N/A
	Kosovo	No GSRRS 2023 participation				
	Montenegro	474	Yes	Yes	Yes	
	North Macedonia	792	Yes	Yes	Yes	
	Serbia	2247		Yes	Yes	
Observing participants	Georgia	N/A	Yes	Yes	Yes	
	Republic of Moldova	881	Yes	Yes	Yes	
	Ukraine	No GSRRS 2023 participation				

Reporting long lasting disability

		Have a system
Regional partners	Albania	No
	Bosnia and Herzegovina	N/A
	Kosovo	No GSRRS 2023 participation
	Georgia	No
	Montenegro	No
	North Macedonia	No
	Serbia	No
Observing participants	Georgia	N/A
	Republic of Moldova	No
	Ukraine	No GSRRS 2023 participation

GSRRS 2023 PRODUCTS

- Report EN PDF. Soon in AR, FR, SP, and RU
- Summary EN PDF. Soon in AR, FR, SP, and RU
- Country and Territory profiles EN PDF
- A one-place stop: https://www.who.int/teams/social-determinants-of-health/safety-and-mobility/global-status-report-on-road-safety-2023.
  - Profiles
  - Data (.xls)
  - Questionnaire
  - Previous reports
  - Videos and other products used at launch
- For any inquiries: sam@who.int



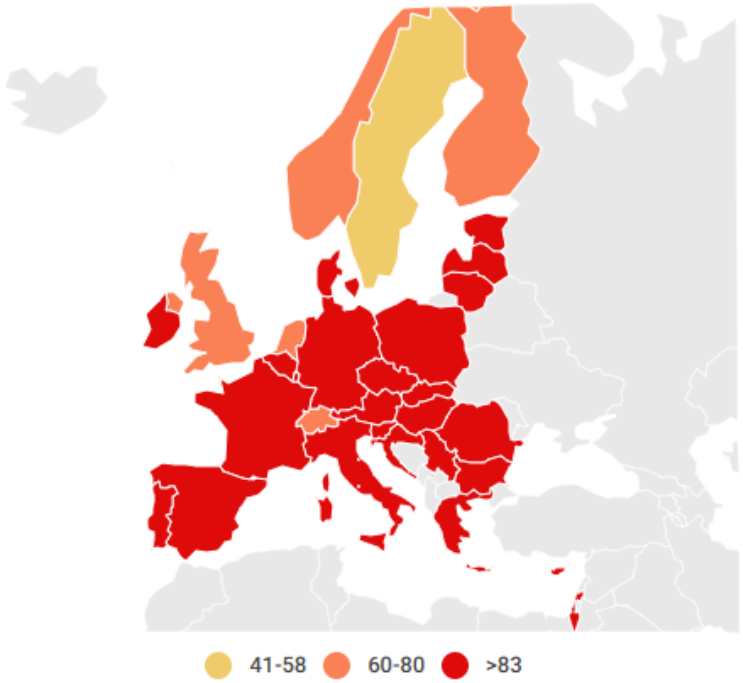
Example of customized group in platform, excludes Kosovo and Ukraine

MAIS3+ and EU funding

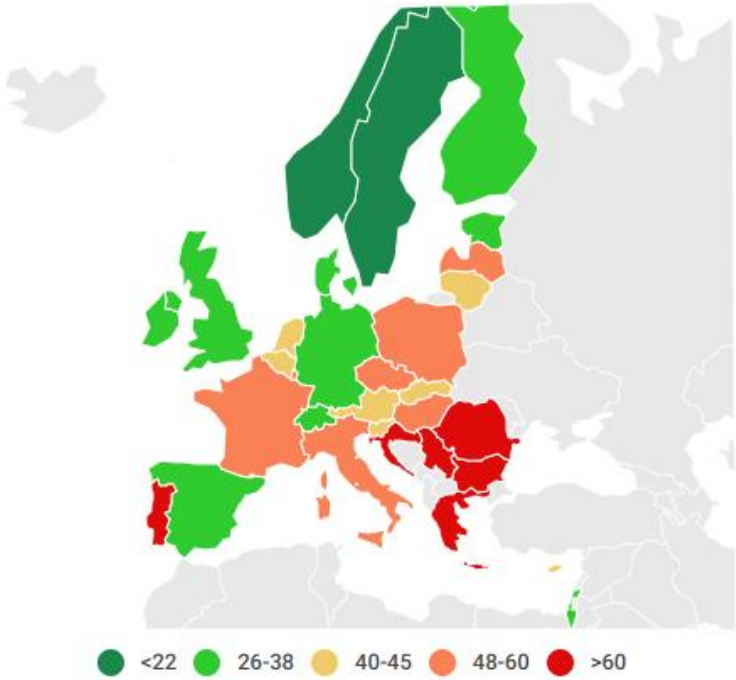
Mark & Maria

A Little history….

2002 Road deaths per 1 M population (Source: ETSC)



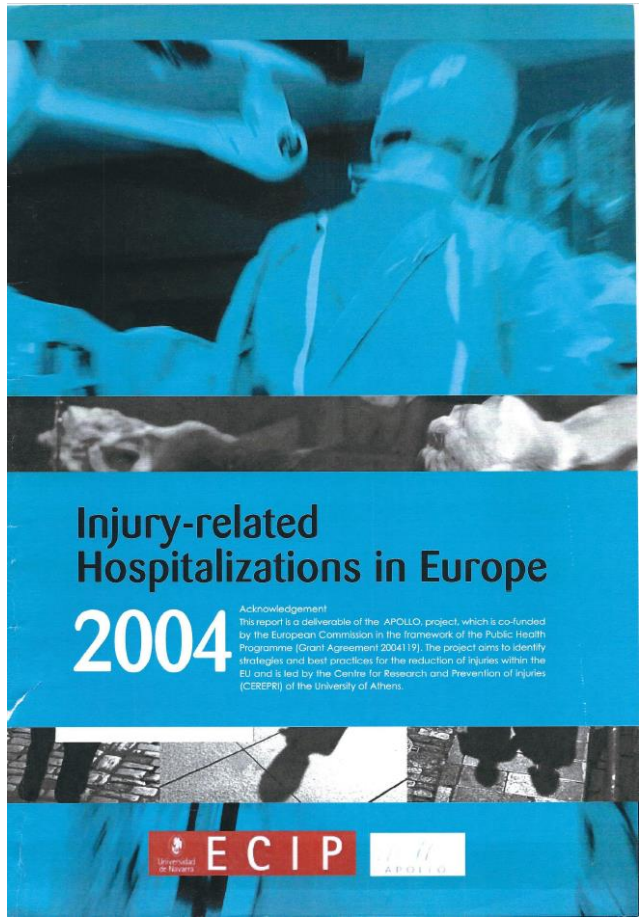
2022 Road deaths per 1 M population (Source: ETSC)



But what about counting non-fatal injuries in different ways?

2004 → 2012 → 2013 → 2015 → 2017 → 2022 → 2024

2004


Injury-related
Hospitalizations in Europe
2004
Acknowledgement
This report is a deliverable of the APOLLO. project, which is co-funded by the European Commission in the framework of the Public Health Programme (Grant Agreement 2004119). The project aims to identify strategies and best practices for the reduction of injuries within the EU and is led by the Centre for Research and Prevention of injuries (CEREPRI) of the University of Athens.
ECIP

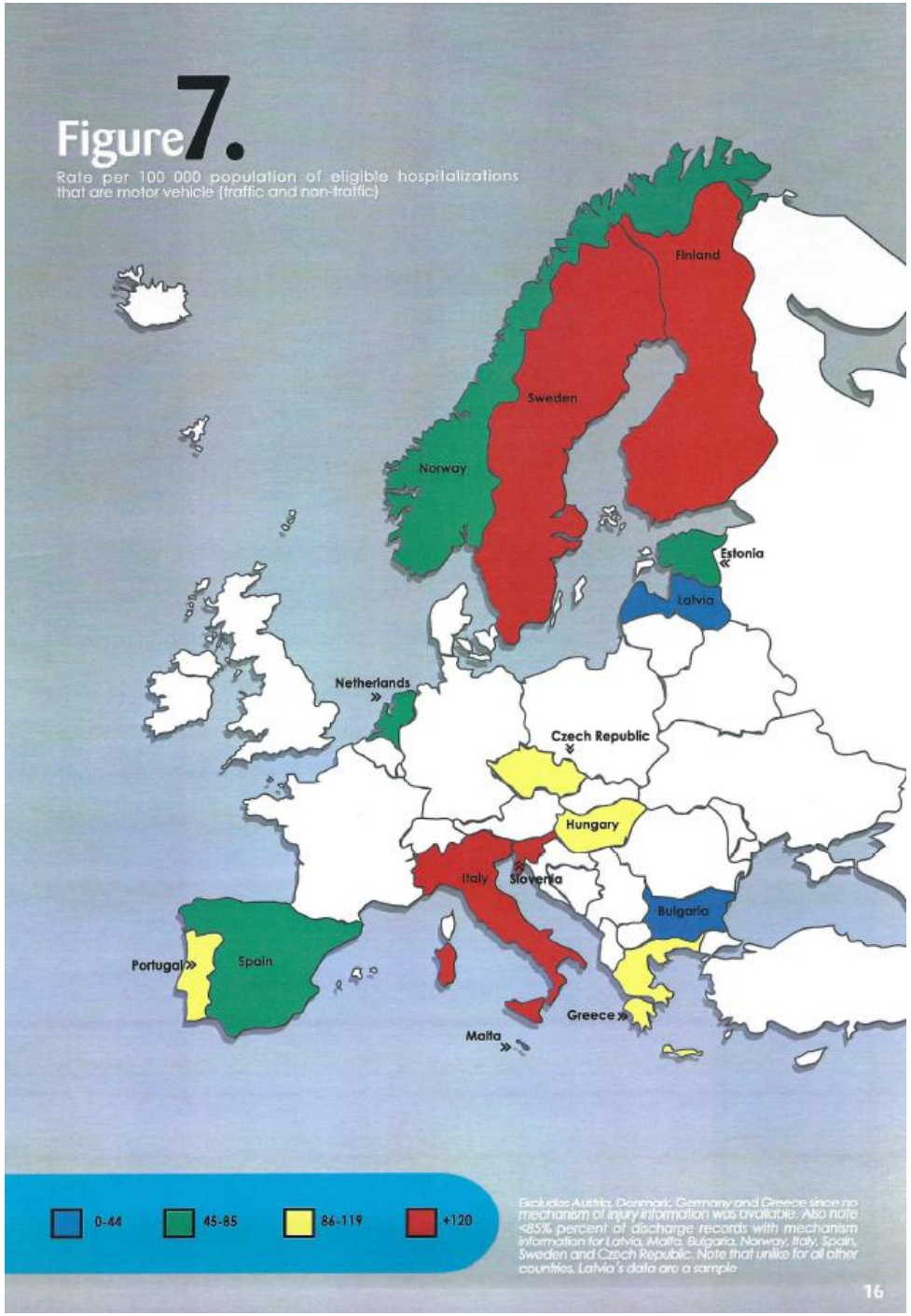
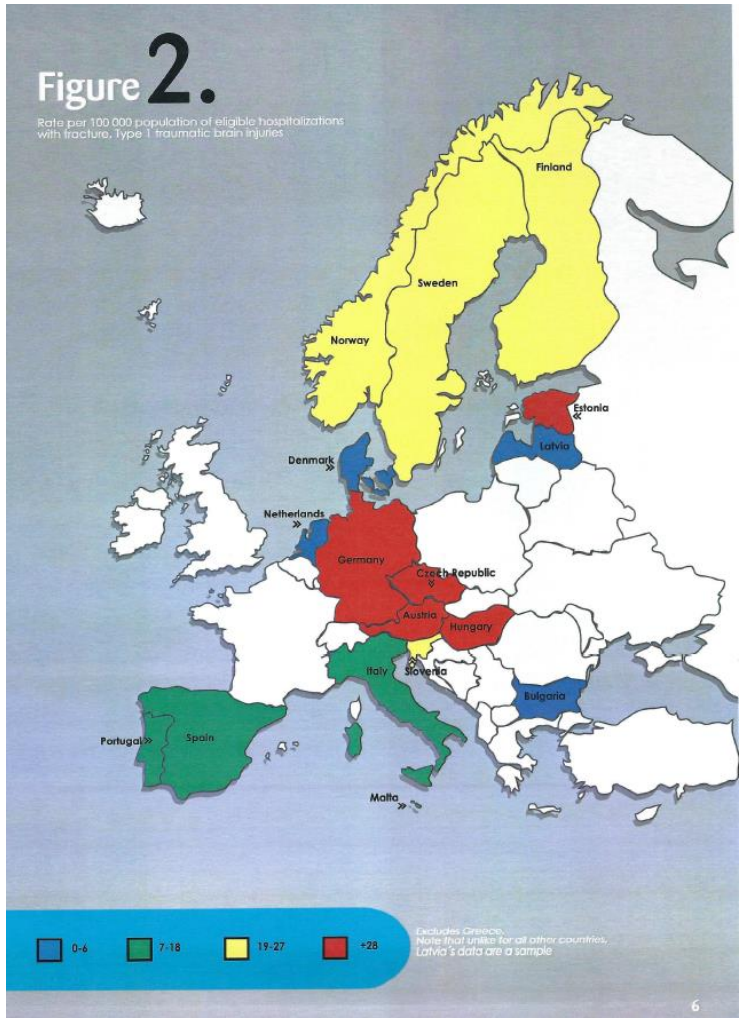
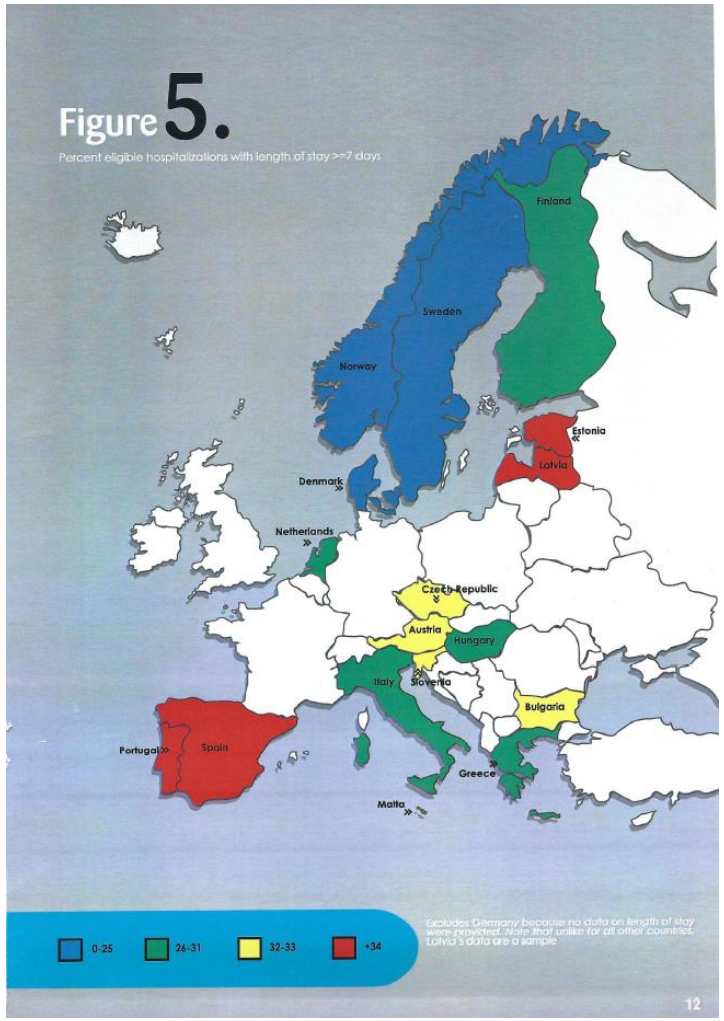
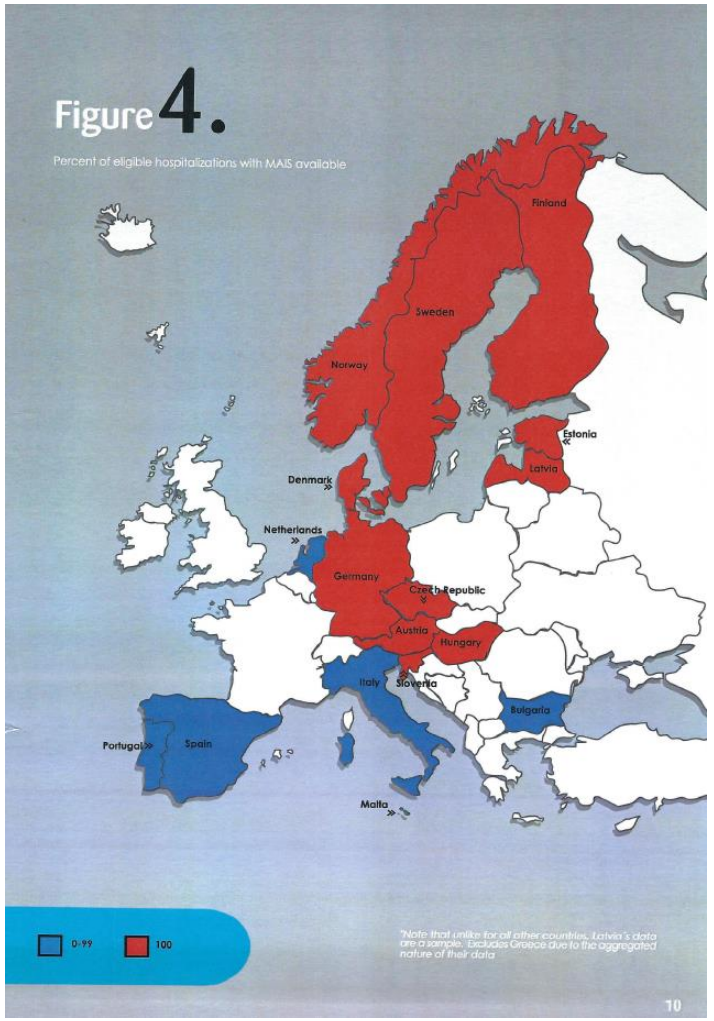


Figure 7.
Rate per 100 000 population of eligible hospitalizations that are motor vehicle (traffic and non-traffic)
Finland
Sweden
Norway
Estonia
Latvia
Netherlands
Czech Republic
Hungary
Italy
Slovenia
Bulgaria
Portugal
Spain
Greece
Malta
0-44
45-85
86-119
+120
Excludes Austria, Denmark, Germany and Greece since no mechanism of injury information was available. Also note <85% percent of discharge records with mechanism information for Latvia, Malta, Bulgaria, Norway, Italy, Spain, Sweden and Czech Republic. Note that unlike for all other countries, Latvia's data are a sample
16

Specific injuries vs. Lenght of stay vs. MAIS available

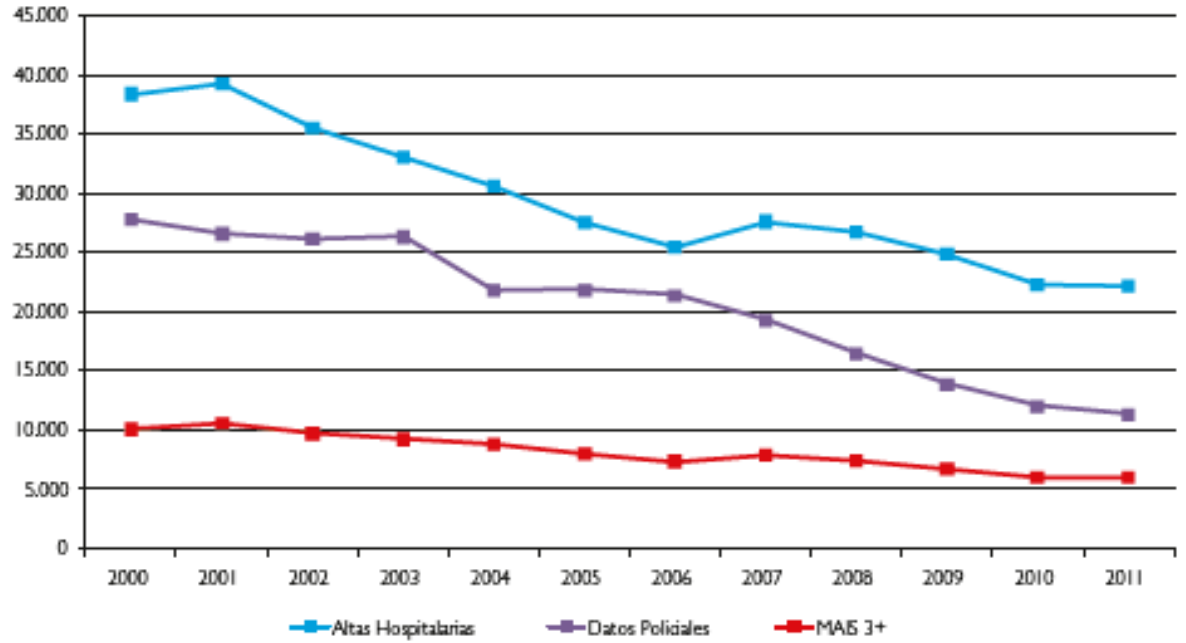






2012

Figura 60. Evolución de los lesionados graves por tráfico (MAIS 3+), altas hospitalarias y heridos graves de los registros policiales. Año 2000-2011



HIGH-LEVEL GROUP ON ROAD SAFETY CONSULTATION ON THE DEVELOPMENT OF THE INJURIES STRATEGY

DRAFT: 1ST OCTOBER 2012

2nd Working Document:

NEXT STEPS IN THE DEVELOPMENT OF THE INJURIES STRATEGY

Prepared by:

Jeanne Breen Consulting
j_breen@btopenworld.com
www.jeannebreen.com
Tel: +44 1756 760340

HLG held in Jan 2013

Summary of recommended next steps

Recommendation 1. The *Injuries Strategy* should adopt the long-term *Safe System* goal and approach to eliminate deaths and serious injuries recommended to all countries by the main international organisations concerned with road safety.

Recommendation 2. The *Injuries Strategy* should adopt a simple, aspirational, interim quantitative EU target to reduce serious injuries (MAIS=>3) by 2020 at a targeted level against baseline to be agreed.

Recommendation 3 The *Injuries Strategy* should target key road safety problems and improved intermediate outcomes (e.g. increasing seat belt use) with evidence-based intervention packages to include EU and country actions and using an agreed set of safety performance indicators in line with international best practice.

Recommendation 4 The national representatives of the CARE expert group should play a key role in assisting Member States, where necessary, with country management of the process of preparing for and reporting on the new common definition of serious injury as an additional field to the existing CARE database.

Recommendation 5 Subject to any further proposals by the CARE expert group, it is recommended that Member States should report on the total number of serious injuries (MAIS=>3) starting with an annual total for 2014 and agree an acceptable timescale for fuller reporting of CARE database variables. In the meantime, it is envisaged that Member States would continue contributing as usual to the CARE database.

Recommendation 6 It is recommended that the High Level Group considers the range of identified actions on driver assistance technologies actions by the EU and Member States and which are broadly consistent with the CARS 21 strategy and the stated aims of the EU institutions. These include recommendations on EU type approval as well as good practice national actions to promote the take-up of effective new technologies.

Recommendation 7 It is recommended that monitoring and evaluation of the effectiveness of vehicle safety technologies is included in the discussion of driver assistance measures, particularly in relation to the establishment of a Pan-European in-depth crash investigation system.

Recommendation 8 It is recommended that the next meeting determines whether a small HLG *Injuries Strategy* working group comprising road safety policy leaders, supported by technical experts, should be established to assist the Commission in determining the scope and further development of the strategy, based on the conclusions of the next HLG meeting.

2013

Re-defining serious injuries

Derived from High Level meeting, Jan 14, 2013 Brussels, BE
Madrid june 14, 2013

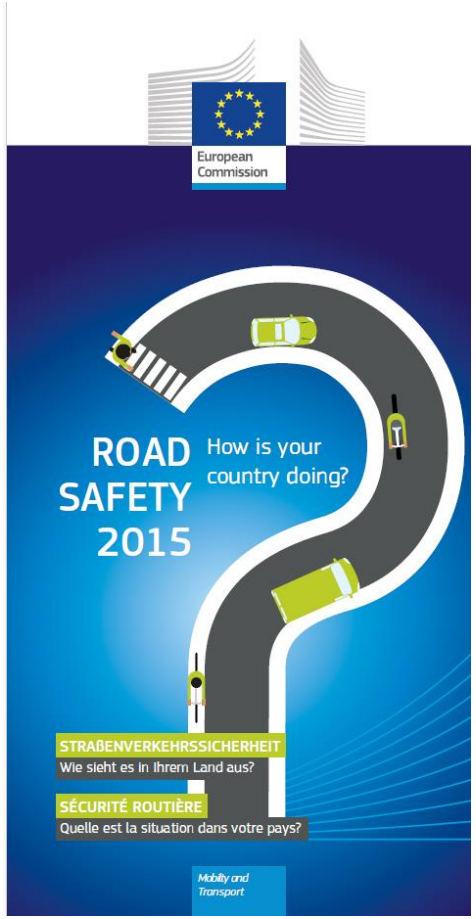
MINISTERIO DEL INTERIOR

DGT Dirección General de Tráfico

DGT Dirección General de Tráfico

Welcome to Spain!

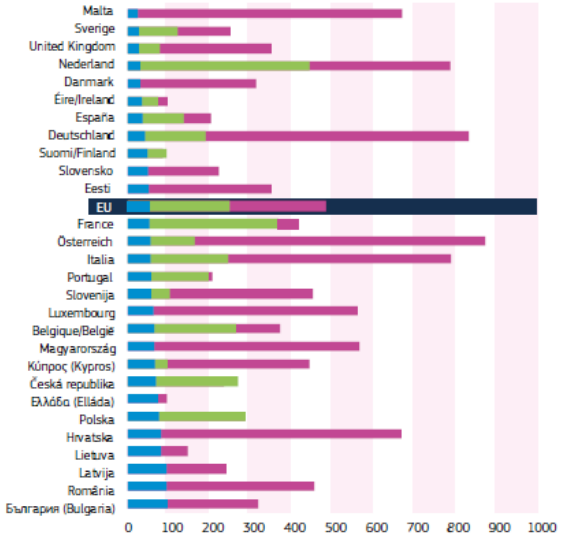
2015



Verkehrstote, Personen behandelt im Krankenhaus und Schwerverletzte (*) pro Mio. Einwohner

Fatalities, hospitalised and seriously injured (*) per million inhabitants

Tués, personnes hospitalisées et blessés graves (*) par million d'habitants



** Neue harmonisierte Definition basierend auf MAIS3+*
** New harmonised definition based on MAIS3+*
** Nouvelle définition harmonisée basée sur MAIS3+*

2017

MALTA EU2017

Valletta Declaration on Road Safety

29 March 2017
Valletta

f) ensure the effective deployment of the e-Call system and reduce rescue times;

g) promote the undertaking of in-depth investigations using relevant samples of severe traffic collisions/accidents and analysing the data to identify priority areas for intervention;

h) continue, in parallel with our efforts towards reaching the 2020 fatality reduction target, with the work towards: (i) reducing the number of serious injuries in road traffic collisions, and (ii) reporting reliable and comparable data using a common definition based on the MAIS[6]3+ trauma scale by 2018;

i) set a target of halving the number of serious injuries in the EU by 2030 from the 2020 baseline using this common definition and in the framework of an overall road safety strategy for this period;

j) continue developing measures to ensure post-collision care, early rehabilitation and social reintegration of road traffic accident victims, in cooperation with the relevant public policy stakeholders, in particular with those representing road traffic victims;

k) effectively enforce road safety rules and provide support to road enforcement bodies, including through cooperation and exchange of best practices, in particular with regard to speeding, driving under the influence of alcohol or drugs, failing to comply with traffic light and traffic sign rules, being distracted while driving, e.g. by using mobile devices, and failing to use protective equipment. Particular attention should be given to preventive tools such as alcohol interlocks, and to other technical support systems;

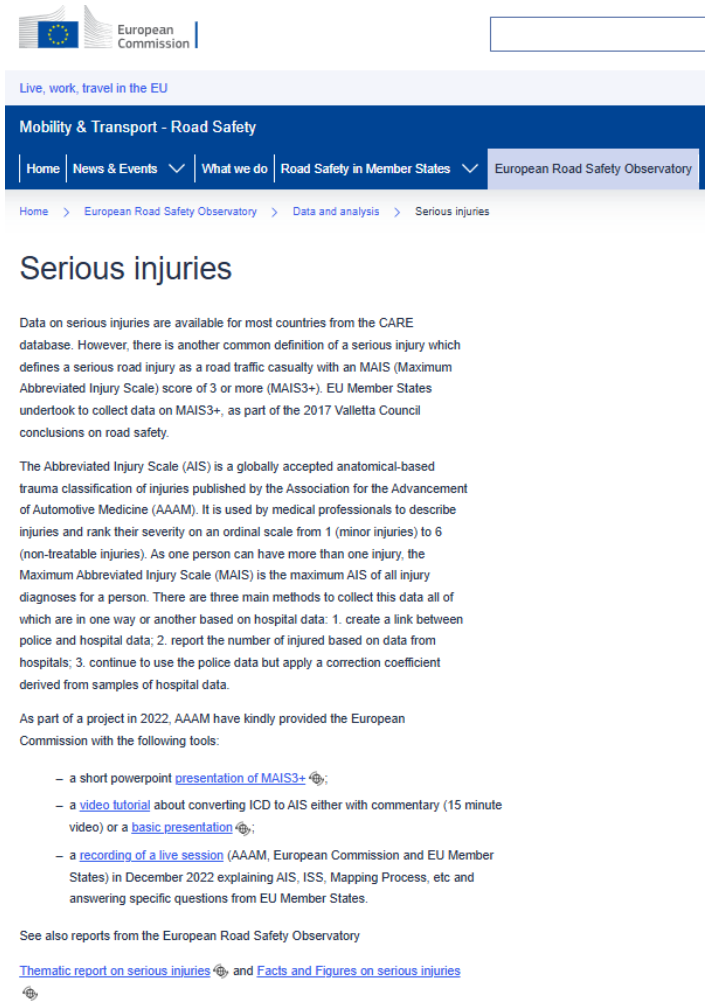
l) continue to work in international road safety bodies[7] to help accelerate improvements in road safety through technical and non-technical means in Europe and further afield;

m) ensure adequate levels of funding for future road safety policies, programmes and research in accordance with: (i) the objectives set out in national strategies and (ii) the available financial resources of the Member States;

---

6 *Maximum Abbreviated Injury Scale*, an index ranging from 1 to 6.
7 Such as working groups of the UN Economic Commission for Europe (Working Party on Road Traffic Safety (WP.1), World Forum for Harmonization of Vehicle Regulations (WP.29), Working Party on the Transport of Dangerous Goods (WP.15)).

2022



European Commission

Live, work, travel in the EU

Mobility & Transport - Road Safety

Home | News & Events | What we do | Road Safety in Member States | European Road Safety Observatory

Home > European Road Safety Observatory > Data and analysis > Serious injuries

Serious injuries

Data on serious injuries are available for most countries from the CARE database. However, there is another common definition of a serious injury which defines a serious road injury as a road traffic casualty with an MAIS (Maximum Abbreviated Injury Scale) score of 3 or more (MAIS3+). EU Member States undertook to collect data on MAIS3+, as part of the 2017 Valletta Council conclusions on road safety.

The Abbreviated Injury Scale (AIS) is a globally accepted anatomical-based trauma classification of injuries published by the Association for the Advancement of Automotive Medicine (AAAM). It is used by medical professionals to describe injuries and rank their severity on an ordinal scale from 1 (minor injuries) to 6 (non-treatable injuries). As one person can have more than one injury, the Maximum Abbreviated Injury Scale (MAIS) is the maximum AIS of all injury diagnoses for a person. There are three main methods to collect this data all of which are in one way or another based on hospital data: 1. create a link between police and hospital data; 2. report the number of injured based on data from hospitals; 3. continue to use the police data but apply a correction coefficient derived from samples of hospital data.

As part of a project in 2022, AAAM have kindly provided the European Commission with the following tools:

- a short powerpoint presentation of MAIS3+;
- a video tutorial about converting ICD to AIS either with commentary (15 minute video) or a basic presentation;
- a recording of a live session (AAAM, European Commission and EU Member States) in December 2022 explaining AIS, ISS, Mapping Process, etc and answering specific questions from EU Member States.

See also reports from the European Road Safety Observatory

Thematic report on serious injuries and Facts and Figures on serious injuries

- The following 13 countries attended at least one of the meetings and benefitted from the support: Belgium, Estonia, Spain, France, Ireland, Italy, Latvia, Lithuania, Netherlands, Austria, Portugal, Slovenia and Switzerland
- *ICD-10-CM or ICD-9-CM to AIS2008*
  - *Based on USA CM*

[Serious injuries - European Commission (europa.eu)]

2024

Indicador MAIS 3+.
Explotación estadística desde los datos hospitalarios
Unión registros hospitalarios y de agentes de tráfico

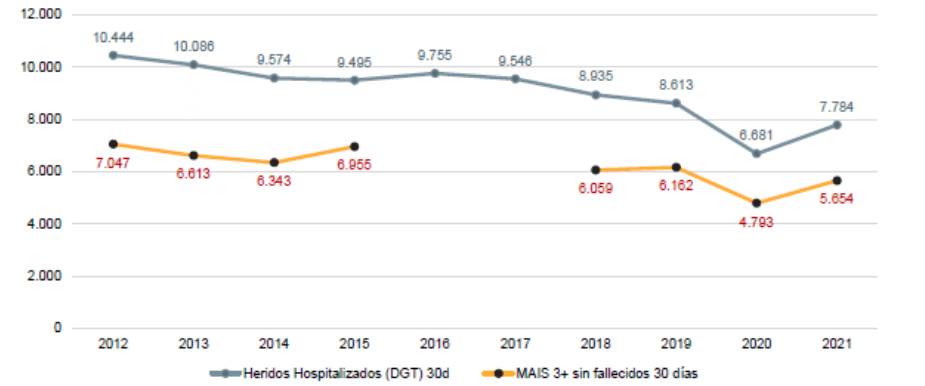
12 junio 2024
Unidad Técnica. DGT. Pilar Zori

OISEVI
Observatorio Iberoamericano de seguridad vial

Identificación de buenas prácticas en materia de análisis de datos e indicadores.

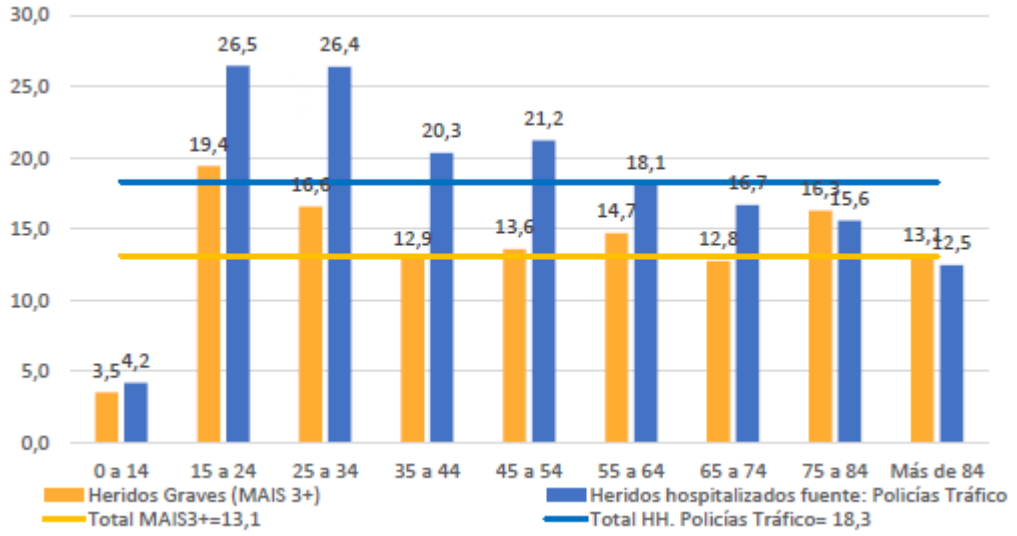
Resultados. Evolución

Evolución de la cifra de las personas heridas graves por siniestros viales (MAIS 3+) y de la cifra de las personas heridas hospitalizadas de los registros policiales. España, 2012-2021.

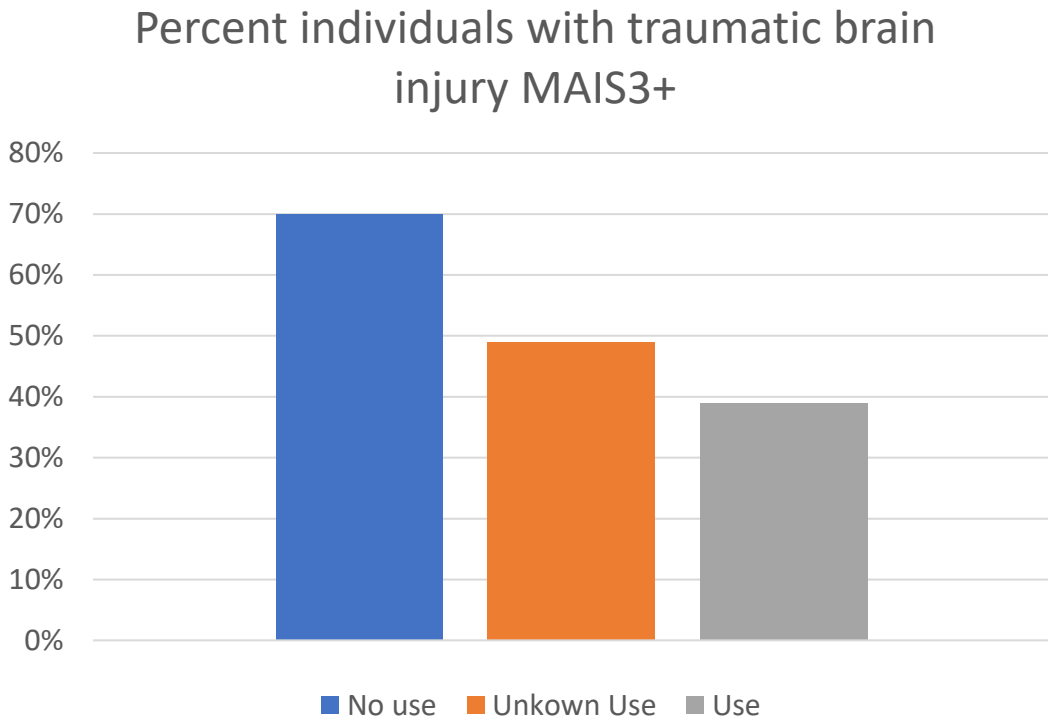


Nota : En 2016 y 2017, los datos de las altas hospitalarias en base a los cuales se calcula el MAIS3+ no son enteramente comparables para todo el territorio nacional, lo que ha motivado su exclusión de este análisis

MAIS3+ vs Hospitalizations. Road Traffic cases per 100 000 pop by age categories, 2021



2021 injured (not killed) Cylist by helmet use



Where we are…

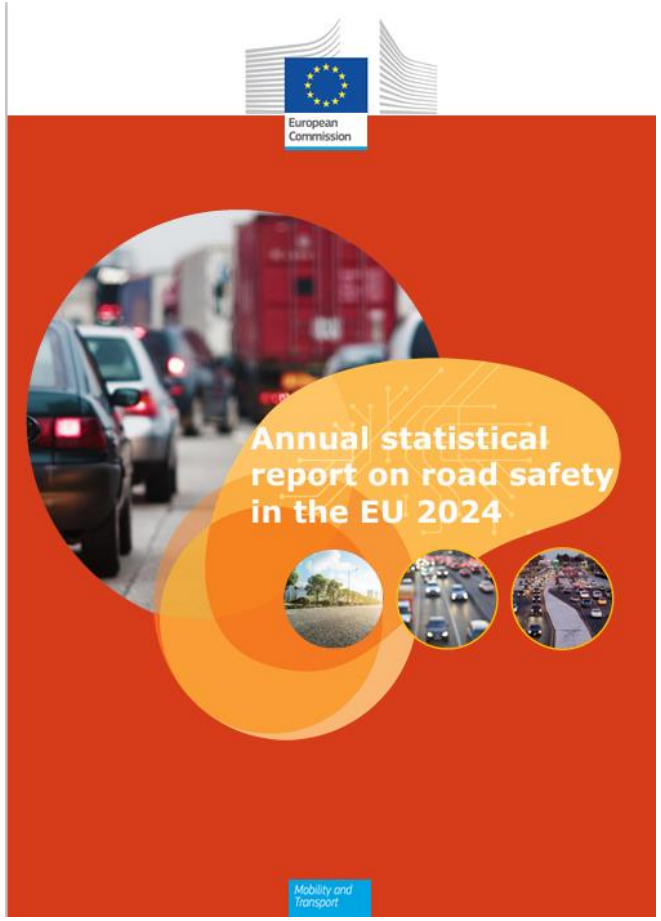


Table 3. Annual number of seriously injured by country (2012, 2018-2022).

Country	2012	2018	2019	2020	2021	2022	LT*	ST*
Belgium	4,736	3,636	3,600	2,968	3,098	3,400	-28%	-6%
Bulgaria	2,204	1,983	1,937	1,556	1,458	1,766	-20%	-9%
Czechia	2,934	2,395	2,061	1,760	1,580	1,681	-43%	-18%
Denmark	1,809	1,436	1,277	1,203	1,163	1,227	-32%	-4%
Germany	66,279	67,967	65,244	58,005	55,137	57,727	-13%	-12%
Estonia	-	-	-	-	-	-	-	-
Ireland	474	1,359	1,506	-	-	-	-	-
Greece	1,399	727	652	518	610	-	-56%	-6%
Spain	10,445	8,935	8,613	6,681	7,784	8,502	-19%	-1%
France	-	-	-	-	-	-	-	-
Croatia	3,051	2,731	2,488	2,295	2,610	2,910	-5%	17%
Italy	-	-	-	-	-	-	-	-
Cyprus	551	348	340	211	252	253	-54%	-26%
Latvia	493	542	461	490	-	-	-	-
Lithuania	-	165	308	376	392	476	-	55%
Luxembourg	339	273	248	217	267	267	-21%	8%
Hungary	4,921	5,559	5,485	4,655	4,595	5,041	2%	-8%
Malta	299	317	305	242	339	-	13%	11%
Netherlands	2,330	13,470	12,425	10,222	7,424	8,420	261%	-32%
Austria	8,017	7,631	7,384	6,650	6,945	7,258	-10%	-2%
Poland	12,049	10,941	10,633	8,805	8,276	7,541	-37%	-29%
Portugal	1,941	2,195	2,383	1,877	2,161	2,302	19%	-3%
Romania	8,860	8,144	8,125	5,491	3,796	3,690	-58%	-55%
Slovenia	848	821	814	678	784	862	2%	6%
Slovakia	1,122	1,247	1,030	894	854	866	-23%	-16%
Finland	-	485	390	408	368	-	-	-6%
Sweden	2,976	2,195	1,951	1,646	-	-	-	-
Iceland	136	183	182	149	199	195	43%	7%
Liechtenstein	-	-	-	-	-	-	-	-
Norway	699	602	565	627	569	578	-17%	2%
Switzerland	4,202	3,873	3,639	3,793	3,933	4,002	-5%	10%

*LT = Long term change of last available year over 2012.
*ST = Short term change of last available year over 2019.

No data available for Estonia, France, Italy and Liechtenstein. Limited data available for Ireland, Latvia, Lithuania, Finland and Sweden and no data available for Liechtenstein.

Definitions and registration differ significantly between countries. Trends within a country are usually meaningful unless registration changed during the reporting time (e.g. the Netherlands). EU totals were omitted due to missing data for several Member Countries. Moreover, the data are only police-reported data.

But…

Seriously injured:
Total number of seriously injured persons corrected by correction factors when needed. Injured (although not killed) in the road crash and, in principle, hospitalised for at least 24 hours within 30 days from the crash.

		Hospital data coding (based on WBRSO baseline questionnaire)	AIS testing (based on minutes of 17th Technical Committee, April 2024)
Regional partners	Albania	ICD 10 (CM?)	The injury level can be evaluated by the MAIS3+, which in Albania is put into action by the National Center of Health Emergencies, in cooperation with the University Trauma Hospital, by evaluation of the cases and compiling the health data modules. Also, The Ministry of Health and Social Protection of Albania in cooperation with the Institute of Public Health would have to draft new policies and frameworks to present and include the implementation of MAIS3+ in various institutional levels.
	Bosnia and Herzegovina	ICD 10 (CM?)	N/A
	Kosovo	No GSRRS 2023 participation	
	Montenegro	ICD 10 (CM?)	A study on the introduction of the MAIS3+ scale was drafted as well as amendments to the Rulebook on the manner of filling in, deadlines for submission and form of reports on the established disease. The mentioned tasks were completed in cooperation with the sector for legal regulations in the Ministry of Health, based on the already legally supported AIS scale, which is the basis for the implementation of the MAIS3 + scale of injuries. There was a delay in further implementation because the Institute of Public Health hasn't approved the drafted documents yet, and that is a presumption for getting approval from the Secretariat for Legislation.
	North Macedonia	ICD 10 (CM?)	N/A
	Serbia	ICD 10 (CM?)	In 2017, Serbia conducted research on the options for implementing the Maximum Abbreviated Injury Scale (MAIS3+) on the number of people injured in road crashes in Serbia. In 2019, the EU funded project Improving Road Safety in Serbia started, aimed at strengthening road safety management in local communities, introducing an improved injury classification system (MAIS3+ injury scale) and improving road infrastructure safety by identifying and eliminating risky road sections and dangerous locations using internationally recognized road infrastructure improvement tools and methodologies, and one of the project goals has been to establish MAIS3+ injury scale data collection. In the period December 2021- March 2022, there were 4 introductory workshops held with designated representatives from in-patient healthcare institutions providing post crash care of road trauma patients. Also, the Institute for Public Health of the Republic of Serbia "Dr Milan Jovanovic Batut" has developed and piloted MAIS3+ data intake through their portal- they have piloted the possibility of entering the MAIS3+ score in the report on hospitalization. Further steps in the education of health workers, further work on the MAIS3+ database and further steps in intersectoral data exchange are

Are you ready? (II)

		Hospital data coding (based on WBRSO baseline questionnaire)	AIS testing (based on minutes of 17th Technical Committee, April 2024)
Observing participants	Georgia	N/A	In the framework of the EU Twinning Project “Support in Establishment of Comprehensive Road Safety Database and Further Improvement of Road Safety Management in Georgia” and with the help of Lithuanian experts, several variables have been added to the test electronic version of the hospital registration form IV-066 and a MAIS3+ conversion tool has been developed to determine the total injury severity level. The medical network statisticians and managers have been trained nationwide regarding the planned changes. At this stage, work is underway on the technical details to be made in the electronic version of the registration form 066 of the patients discharged from the hospital and the required amendments to the regulatory documents.
	Republic of Moldova	N/A	
	Ukraine	No GSRRS 2023 participation	

Conclusions

- It is a new language and a new approach –be patient as it will take a Little time
- Others have walked the path before, take advantage of their mistakes
- Use help!

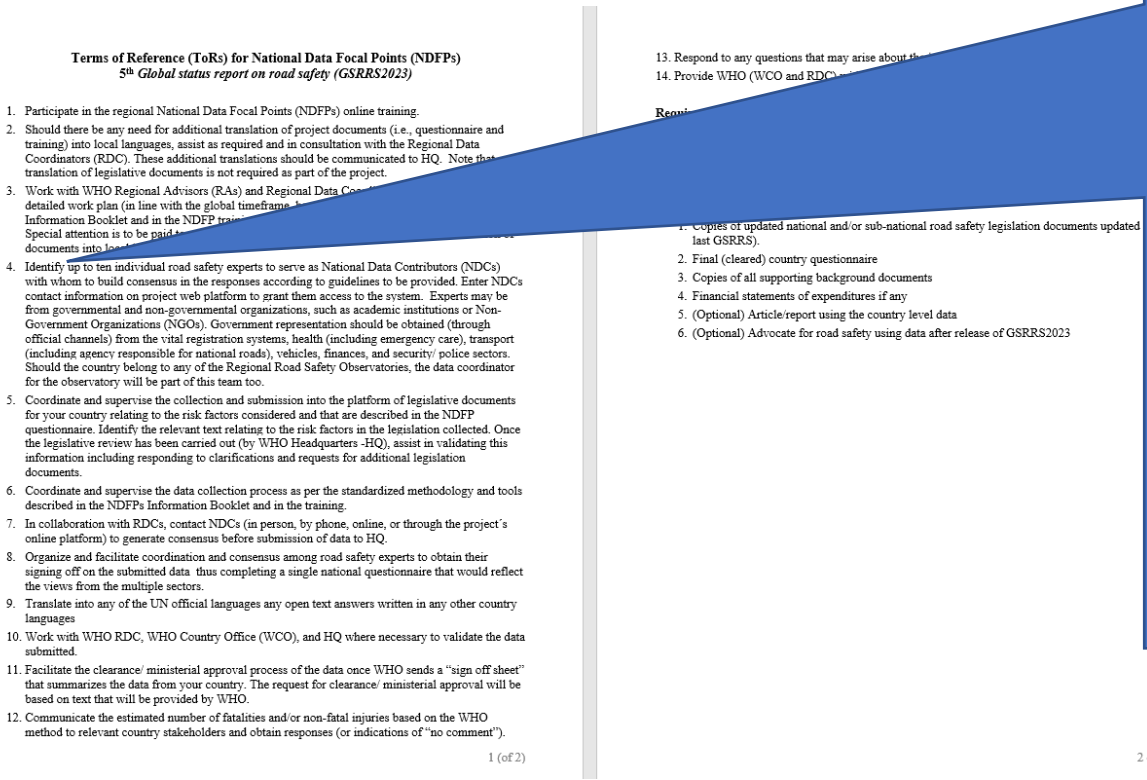
Innovations in AIS –computerized app and translation algorithms

Add Mark´s slides

Engagement of multiple sectors on the road safety challenge

Maria

The proposal (GSRRS 2023)



Terms of Reference (ToRs) for National Data Focal Points (NDFPs)
5th Global status report on road safety (GSRRS2023)

1. Participate in the regional National Data Focal Points (NDFPs) online training.
2. Should there be any need for additional translation of project documents (i.e., questionnaire and training) into local languages, assist as required and in consultation with the Regional Data Coordinators (RDC). These additional translations should be communicated to HQ. Note that translation of legislative documents is not required as part of the project.
3. Work with WHO Regional Advisors (RAs) and Regional Data Co… detailed work plan (in line with the global timeframe… Information Booklet and in the NDFP trai… Special attention is to be paid … documents into local …
4. Identify up to ten individual road safety experts to serve as National Data Contributors (NDCs) with whom to build consensus in the responses according to guidelines to be provided. Enter NDCs contact information on project web platform to grant them access to the system. Experts may be from governmental and non-governmental organizations, such as academic institutions or Non-Government Organizations (NGOs). Government representation should be obtained (through official channels) from the vital registration systems, health (including emergency care), transport (including agency responsible for national roads), vehicles, finances, and security/ police sectors. Should the country belong to any of the Regional Road Safety Observatories, the data coordinator for the observatory will be part of this team too.
5. Coordinate and supervise the collection and submission into the platform of legislative documents for your country relating to the risk factors considered and that are described in the NDFP questionnaire. Identify the relevant text relating to the risk factors in the legislation collected. Once the legislative review has been carried out (by WHO Headquarters -HQ), assist in validating this information including responding to clarifications and requests for additional legislation documents.
6. Coordinate and supervise the data collection process as per the standardized methodology and tools described in the NDFPs Information Booklet and in the training.
7. In collaboration with RDCs, contact NDCs (in person, by phone, online, or through the project´s online platform) to generate consensus before submission of data to HQ.
8. Organize and facilitate coordination and consensus among road safety experts to obtain their signing off on the submitted data thus completing a single national questionnaire that would reflect the views from the multiple sectors.
9. Translate into any of the UN official languages any open text answers written in any other country languages
10. Work with WHO RDC, WHO Country Office (WCO), and HQ where necessary to validate the data submitted.
11. Facilitate the clearance/ ministerial approval process of the data once WHO sends a "sign off sheet" that summarizes the data from your country. The request for clearance/ ministerial approval will be based on text that will be provided by WHO.
12. Communicate the estimated number of fatalities and/or non-fatal injuries based on the WHO method to relevant country stakeholders and obtain responses (or indications of "no comment").

1 (of 2)

13. Respond to any questions that may arise about th…
14. Provide WHO (WCO and RDC) …

Requi…

1. Copies of updated national and/or sub-national road safety legislation documents updated last GSRRS).
2. Final (cleared) country questionnaire
3. Copies of all supporting background documents
4. Financial statements of expenditures if any
5. (Optional) Article/report using the country level data
6. (Optional) Advocate for road safety using data after release of GSRRS2023

2 (of 2)

Identify up to ten individual road safety experts to serve as National Data Contributors (NDCs) with whom to build consensus in the responses according to guidelines to be provided. Enter NDCs contact information on project web platform to grant them access to the system. Experts may be from governmental and non-governmental organizations, such as academic institutions or Non-Government Organizations (NGOs). Government representation should be obtained (through official channels) from the vital registration systems, health (including emergency care), transport (including agency responsible for national roads), vehicles, finances, and security/ police sectors. Should the country belong to any of the Regional Road Safety Observatories, the data coordinator for the observatory will be part of this team too.

The reality: Declared composition of teams reporting to GSRRS 2023

		NDFP	NDC1	NDC2	…					NDC8	…	NDC10
Regional partners	Albania	Ministry of Transport										
	Bosnia and Herzegovina	Ministry of Transport **Regional Road Safety Observatory**										
	Kosovo	No GSRRS 2023 participation										
	Montenegro	**Ministry of Health**	Ministry of Infrastructure	Ministry of Interior								
	North Macedonia	**Ministry of Health**										
	Serbia	Lead agency	Ministry of Interior	Lead agency	Lead agency	Lead agency	Ministry of Infrastructure	Non-Governmental Organization	Non-Governmental Organization	Ministry of Interior		
Observing participants	Georgia	**Ministry of Health**	**Ministry of Health**	Non-Governmental Organization	Other	Ministry of Transport	Ministry of Infrastructure	Ministry of Interior				
	Republic of Moldova	Ministry of Interior **Regional Road Safety Observatory**										
	Ukraine	No GSRRS 2023 participation										

The reality: contributions to GSRRS 2023

		NDFP	NDC1	NDC2	…					NDC8	…	NDC10
Regional partners	Albania	Ministry of Transport										
	Bosnia and Herzegovina	Ministry of Transport **Regional Road Safety Observatory**										
	Kosovo	No GSRRS 2023 participation										
	Montenegro	**Ministry of Health**	?	?								
	North Macedonia	**Ministry of Health**										
	Serbia	Lead agency	?	?	?	?	?	?	?	?		
Observing participants	Georgia	**Ministry of Health**	?	?	?	?	?	?				
	Republic of Moldova	Ministry of Interior **Regional Road Safety Observatory**										
	Ukraine	No GSRRS 2023 participation										

2012

Tabla 153. Matriz de Barell*, CIE-9-MC, distribución porcentual de las lesiones por accidente de tráfico. Año 2011 (22.102 altas y 40.678 lesiones)

			Fracturas	Dislocación	Esguince y torcedura	Interno	Herida	Amputaciones	Vasos sanguíneos	Contusión superficial	Aplastamiento	Quemaduras	Heridos	NE	Total
Cabeza y cuello	Lesión cerebral	Tipo 1	2,39%	0	0	4,51%	0	0	0	0	0	0	0	0	6,91%
		Tipo 2	0,61%	0	0	3,73%	0	0	0	0	0	0	0	0	4,34%
		Tipo 3	0,32%	0	0	0	0	0	0	0	0	0	0	0	0,32%
	Otra cabeza, cara y cuello	Cabeza	0	0	0	0	0,81%	0	0	0	0	0	0,05%	0,59%	1,25%
		Cara	3,62%	0,01%	0,03%	0	1,87%	0	0	0	0	0	0	0	5,79%
		Ojo	0	0	0	0	0,34%	0	0	0,23%	0	0	0,01%	0	0,58%
		Cuello	0,03%	0	0,03%	0	0,03%	0	0	0	0	0,00%	0,06%	0	0,06%
		Cabeza, cara y cuello NE	0	0	0	0	0	0	0,03%	0,91%	0	0,01%	0	0,23%	1,19%
Médula espinal y espalda	Médula espinal	Cervical	0,19%	0	0	0,10%	0	0	0	0	0	0	0	0	0,29%
		Torácica/dorsal	0,19%	0	0	0,02%	0	0	0	0	0	0	0	0	0,20%
		Lumbar VCI	0,13%	0	0	0,00%	0	0	0	0	0	0	0	0	0,13%
		Sacro coccígeo	0,01%	0	0	0,00%	0	0	0	0	0	0	0	0	0,01%
		Médula espinal NE	0	0	0	0,01%	0	0	0	0	0	0	0	0	0,01%
	Columna vertebral	Cervical	1,45%	0,13%	1,09%	0	0	0	0	0	0	0	0	0	2,70%
		Torácica/dorsal	1,69%	0,01%	0,07%	0	0	0	0	0	0	0	0	0	1,76%
		Lumbar VCI	2,37%	0,01%	0,09%	0	0	0	0	0	0	0	0	0	2,46%
		Sacrococcígeo	0,49%	0,04%	0,00%	0	0	0	0	0	0	0	0	0	0,53%
		Médula espinal NE	0,07%	0	0	0	0	0	0	0	0	0	0	0	0,07%
Tórax	Tórax	Pecho (tórax)	7,69%	0,02%	0,01%	4,77%	0,02%	0	0,06%	0,87%	0	0,03%	0	0	13,19%
		Abdomen	0	0	0	3,95%	0,11%	0	0,06%	0,30%	0	0,03%	0,01%	0	4,36%
		Pelvis y cingular	5,82%	0,07%	0,03%	0,14%	0,10%	0	0,01%	0,08%	0	0,00%	0,06%	0	5,95%
		Tronco	0,03%	0	0	0	0,03%	0	0	0,14%	0	0,01%	0	0,98%	1,17%
		Espalda y nalgas	0	0	0,00%	0	0,02%	0	0	0,29%	0,01%	0,02%	0	0	0,31%
Extremidades	Superior	Hombro y brazo	8,79%	0,09%	0,10%	0	0,13%	0,03%	0	0,27%	0,06%	0,01%	0	0,10%	9,56%
		Antebrazo y codo	5,59%	0,17%	0,05%	0	0,49%	0,01%	0	0,07%	0,00%	0,03%	0	0	6,39%
		Carpo, manos y dedos	2,44%	0,39%	0,12%	0	0,71%	0,09%	0	0,19%	0,03%	0,03%	0	0,07%	4,00%
		Otros NE	0,01%	0	0	0	0,07%	0,01%	0,08%	0,20%	0,00%	0,03%	0,26%	0,03%	0,69%
	Inferior	Cadera	2,69%	0,39%	0,04%	0	0	0	0	0,12%	0	0	0	0	3,23%
		Rodilla	2,67%	0	0	0	0	0,01%	0	0,14%	0,01%	0,00%	0	0	2,83%
		Tobillo	0,83%	0,20%	0,25%	0	0	0	0	0,21%	0,00%	0,01%	0	0	1,50%
		Pierna y tobillo	11,02%	0,12%	0,33%	0	0	0,03%	0	0,13%	0,03%	0,01%	0	0	11,67%
		Pie y dedos del pie	2,13%	0,19%	0,00%	0	0,31%	0,03%	0	0,10%	0,00%	0,01%	0	0	2,85%
Lesiones múltiples por localización	Otros / NE	Otros NE	0,02%	0	0,19%	0	1,88%	0,03%	0,14%	0,41%	0,02%	0,03%	0	0,33%	2,57%
		Otros / múltiples	0,04%	0	0	0	0	0	0,01%	0	0	0	0,09%	0	0,14%
		Localización NE	0,03%	0,01%	0,02%	0,02%	0,08%	0	0,00%	3,42%	0,00%	0,04%	0,00%	0,87%	4,48%
	Todo el sistema	Todo el sistema y efectos tardíos	0	0	0	0	0	0	0	0	0	0	0	0	0,07%
		TOTAL	66,47%	3,51%	3,49%	17,30%	6,87%	0,31%	0,58%	7,82%	0,16%	0,38%	0,42%	2,51%	100%

* Subgrupo: Todos los heridos de accidente de tráfico excluidos los fallecidos.

Hospital data use a different language. For example:

Cases maching following criteria:

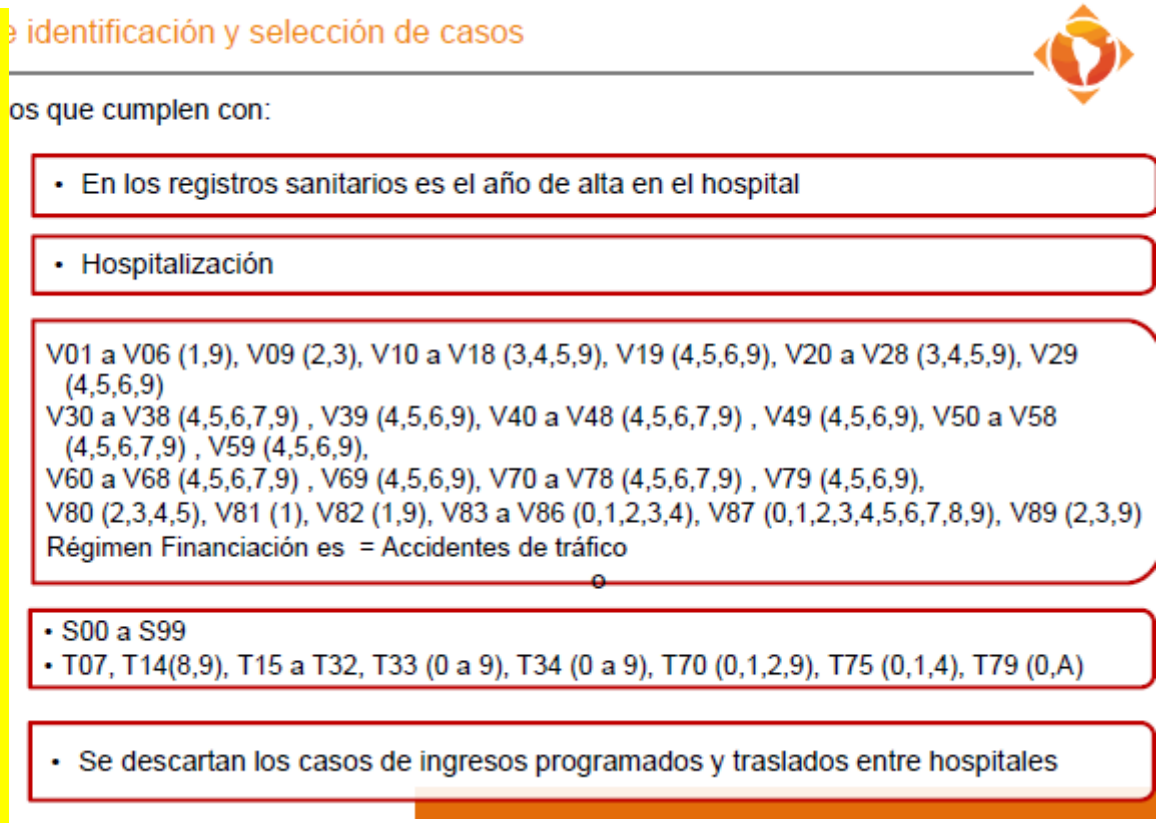
-Year

-Admission type

-ICD-10 (CM) code

-ICD-10 S or T code

-New admission



Thanks!

marksochor@gmail.com

mariaseguigomez@gmail.com

info@aaam.org