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# **Strengths and weaknesses of road crash data collection in the EuroMed region – Diagnosis**

**Athens, May 8-10, 2018**

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# Objective

TA on setting up road safety reliable, harmonized and comparable data collection system and sharing at regional level

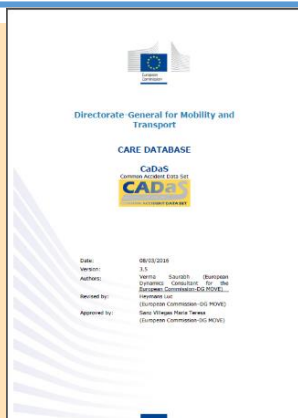


**Identify the current situation** of data collection and processing in the region (diagnosis), including strengths and weaknesses

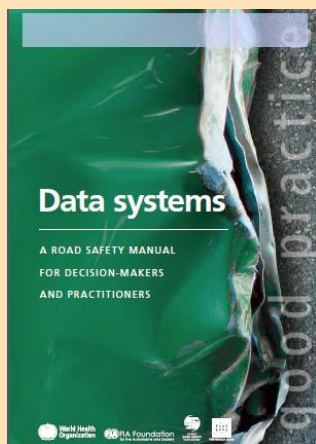


# Review of international good practice

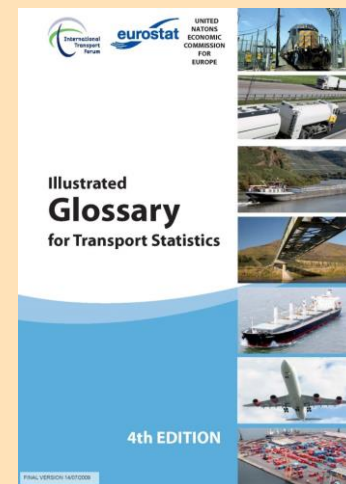
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- **The European good practice**
  - **The CARE database** with disaggregate data of European countries
  - **The CADaS protocol** for harmonized variables and values
  - **The European Road Safety Observatory** as a knowledge and data source for decision support



- **The UN Glossary for Transport Statistics**
- **The WHO manual for road safety data systems**
- **The IRTAD database processes** for data validation and member accession







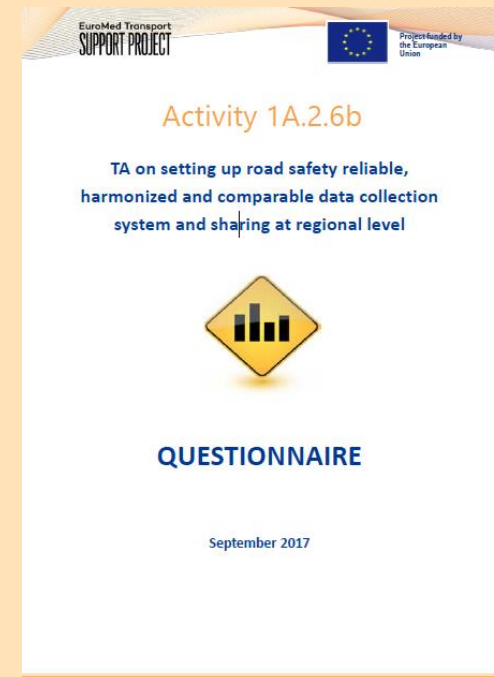
# 'Diagnosis' questionnaire

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## Development of a dedicated questionnaire:

- General context - road safety **management**
- **Agencies and other stakeholders involved** in data collection
- **Objectives of the data collection** by each sector
- The **data systems applied** (national databases, etc.)
- The **data elements available** (variables, values, etc.)
- **Data quality** (definitions, missing values, under-reporting etc.)
- **Resources and capacity** for data collection
- **Publication and use** of the data

Explicitly designed to analyze both **Police and Health Sector data**





# Diagnosis missions

Cooperation with the national road safety statistical services

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**Beirut, 13-15 September 2017**

**Cairo, 2-5 October 2017**

**Marrakech, 10-13 October 2017**

**Algiers, 19-20 November 2017**

**Tunis 21 – 22 November**

**Amman, 22-25 April 2018**



Regional Workshop, Athens, 8-10 May 2018





# Algeria



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## Police data

- Killed at 30 days but not clear whether full follow-up is made
- No differentiation between serious and slight injuries (“based on the estimation of the investigator”)
- The database is currently hosted by the Police, but another system is under development: central database that will be powered and operated in real time by all the police services.
- Electronic means for data collection and GPS are used only by Gendarmerie
- Know missing values : vehicle state (technical inspection)





# Algeria (cont'd)



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## Health Sector data

- ICD-10 protocol is used for causes of death, as well as the WHO death certificate
- Lack of completeness: only 40% of deaths are collected by the cause of death registry from all causes
- Main reasons the lack of training and skills
- *Further discussion with Health Sector stakeholders in future mission*



## Data publication and sharing

- On-line publication
- Data used by several stakeholders for policy making and user education
- Observatory: le Centre National de Prévention et de Sécurité Routières (Lead Entity under the Ministry of Interior).



# Algeria - diagnosis



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## Good practice elements

- Lead agency and clear road safety management structure
- Project for centralizing crash records for all police services
- National Road Safety Observatory and publication of data

## Elements needing improvement

- ? Strengthening efforts for 30-days follow-up
- ? Harmonise equipment and procedures between Police and Gendarmerie
- ? Cross-checking of Police and Hospital data to estimate under-reporting
- ? Update National Data Collection form to include international definitions of crash characteristics







# Egypt



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## Police data

- A unique context exists in Egypt, as road safety data collection is fragmented between three different key stakeholders, each one managing crash casualties within a different time frame:
  - The Traffic Police is responsible for recording only fatalities ‘on the spot’;
  - The Egyptian Ambulances Organisation (EOA) records any fatalities that occur during the transfer (pre-hospital);
  - The Ministry of Health, through Hospitals, records fatalities once admitted to a hospital and thereafter, without a time limit;
- Data structure and content, variables and values and country coverage is considered satisfactory.





# Egypt (cont'd)



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## Health Sector Data

- Unlike most countries, the Ministry of Health (Hospitals) are responsible for the follow-up of crash casualties for the 30 day period and the related update to the Police. However, in practice this is done to a very small extent.
- After a few weeks following the crash, the initial cause of injury may not be assigned to the related death.
- *Health sector full data assessment pending, but less critical (country in Group 1)*

## Data publication and sharing

- Limited cooperation between Police, Transport and Health Sectors
- Lack of a national publication of detailed road safety statistics; some bulletins are issued on occasional basis.





# Egypt - diagnosis



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## Good practice elements

- ✓ Vital Registration Data meet the WHO quality criteria, country is in Group 1
- ✓ Inter-sectoral database and application developed to allow (i) data entry by three key parties involved, with a unique identifier so that follow up can be made, and (ii) data retrieval for analysis purposes by all parties.

## Elements needing improvement

- ? Adoption of 30-days definition and proper follow-up of fatalities
- ? A “silo” effect between stakeholders, recent initiatives for cooperation are pending
- ? security clearances for data sharing
- ? The inter-sectoral database is inactive due to lack of equipment
- ? A “plan B” needed for the improvement of the current data and the strengthening of the coordination between the three key players
- ? Update National Data Collection form to include international definitions of crash characteristics







# Jordan



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## Police data

- 30 days definition and systematic follow-up.
- Under-reporting mostly due to heavy workload / limited capacity of the Police - but estimated to be low.
- Some issues with crash location due to GPS coverage, recording of drugs and alcohol involvement, seat belt use recording.
- A new system (2015 achieved national coverage) with electronic data recording and on-line transmission.
- Access to central database and retrieval of 80 predefined Tables for selected users, additional data can be provided upon request.
- Strong role of Police in all stages of data collection, analysis and publication





## Jordan (cont'd)



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### Health Sector data

- Fair VRD and regular publication of mortality statistics
- Relatively close to meeting the WHO data quality thresholds
- Known reasons for the under-estimation of cause of death due to traffic accidents: fatalities of non-Jordan nationals and mis-classification of some road crash fatalities as “event of undetermined intent”

### Data publication and sharing

- An annual national publication of detailed road safety statistics; other bulletins are issued on occasional basis.
- A contact with IRTAD is made in order to harmonize national data with the IRTAD protocol – however no action has been done thus far



# Jordan-diagnosis



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## Good practice elements

- ✓ Robust set-up and smooth operation of the data collection system
- ✓ Electronic data recording and transmission, GPS location
- ✓ Regular data publication and “open” data culture
- ✓ VRD quality close to WHO standards, potential for improvement in the short-term

## Elements needing improvement

- ✓ Cross-checking of Police data and VRD to estimate the level of under-reporting
- ✓ Update National Data Collection form to include international definitions of crash characteristics
- ✓ Establishment of National Road Safety Observatory





# Lebanon



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## Police data

- No limit (e.g. 30 days) is assigned to road fatalities recording, as the process is closely linked to the court investigation.
- A proposition of updated Data Collection Form was been made, with the explicit purpose to allow better analyses of the causes of the crash, and remove the focus of data recording from the purpose of assigning the blame for the court (expected within 2018-2019).
- Under-reporting mostly due to heavy workload / limited capacity of the Police.
- Current Data Collection Form structure and content, variables and values and procedures for following up on the crash satisfactory and country coverage is considered satisfactory.





## Lebanon (cont'd)



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### Health Sector Data

- Key role of the Red Cross in crash casualty intervention.
- Other emergency services exist, but are much less thorough in reporting.
- A MoU with the American University of Beirut to work on the question of injury reports.

*Further discussion with Health Sector stakeholders in future mission*

### Data publication and sharing

- There is currently lack of a national publication of detailed road safety statistics; some bulletins are issued on occasional basis.
- A contact with IRTAD is made in order to harmonize national data with the IRTAD protocol – however no action has been done thus far



# Lebanon-diagnosis



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## Good practice elements

- ✓ Intersectoral high level body for road safety management
- ✓ Update of National Data Collection form to better identify accident causes and characteristics
- ✓ Under-reporting fully recognized as an important issue requiring substantial efforts for improvement.

## Elements needing improvement

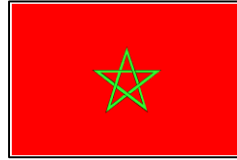
- ? Adoption of 30-days definition
- ? Follow-up of fatalities for 30 days
- ? Update National Data Collection form to include international definitions of crash characteristics
- ? Establishment of systematic cooperation between Police, Transport and Health
- ? Publication of road crash statistics and data sharing







# Morocco



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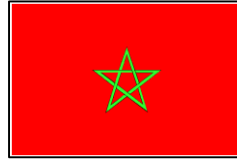
## Police data

- 30-days definition used with systematic follow-up
- Definition of serious injury: hospitalized more than 6 days
- Known difficulty in recording accident location (no GPS)
- Some variables are incompletely recorded





## Morocco (cont'd)



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### Health Sector Data

- ICD-10 used for causes of death, but VRD are very incomplete
- Data from EMS / Ambulances, Hospital admissions
- Under-reporting of private hospitals data

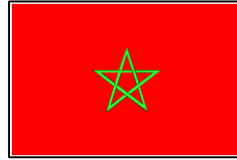
### Data publication and sharing

- Systematic publication of crash statistics, data exchange between some stakeholders
- Under accession to IRTAD





# Morocco-diagnosis



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## Good practice elements

- ✓ Multi-sectoral road safety management structure, systematic cooperation between MOT, Police, health sector
- ✓ Data are used for identifying targets and monitoring the road safety strategy
- ✓ In addition to crash data, exposure (vehicle kilometres) and Safety Performance Indicators systematically collected



## Elements needing improvement

- ? Use of electronic means and GPS for data recording
- ? Establishment of National Observatory pending
- ? Cross-checking and validation of Police and Hospital data to estimated the level of under-reporting
- ? Update National Data Collection form to include international definitions of crash characteristics





# Tunisia

## Police data

- Garde nationale and Observatory host the database
- No electronic means or GPS used
- There is a data collection form that is not used at the accident site.
- The database includes no information on road design and environment
- 30 days follow-up is made through death certificates
- No definition of severity
- Under-reporting openly recognised as an issue  
(accidents not reported, or police can not go to the crash due to lack of manpower)
- Lack of definitions (other than the accident) and
- lack of detail, data completeness not satisfactory





# Tunisia (cont'd)



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## Health Sector data

- ICD-10 protocol is used, but not all causes of death and types of injury are properly defined
- Recent initiatives to cross-check Police and Health data through the Ministry of Health SHOCROOM (database of emergency incidents)

## Data publication and sharing

- National Road Safety Observatory publishes road safety statistics, knowledge and news.
- Data shared with WHO and UNESCWA





# Tunisia-diagnosis

## Good practice elements

- ✓ National Road Safety Observatory strong role in publication of statistics, awareness raising and information
- ✓ The MOH and MOI in the process of thinking about setting up a system for exchanging information on road accident data.
- ✓ A national project aiming to link major databases and systems in the country (under development)

## Elements needing improvement

- ? No lead agency - no national strategy
- ? Data Collection Form not used on the spot
- ? Strengthening efforts for 30-days follow-up
- ? Cross-checking Police & Hospital data to estimate under-reporting
- ? Update and activate National Data Collection form to include int. definitions of crash characteristics





# Conclusions

- The need for collection of **road safety reliable, harmonized and comparable data** is fully recognized by all EuroMed Partner countries.
- There are important past and ongoing efforts in all countries, and **several good practice elements** for each country to demonstrate.
- However, there are **important challenges remaining to be addressed** and elements needing improvement in all countries.
- Considerable **opportunities for transfer of knowledge between countries** in order to share good practice and strengthen cooperation to address the common challenges.





# Main challenges

- Definition of **person killed in 30 days, systematic follow-up** as a responsibility of the Police
- Establishment / upgrade of National Data Collection form and procedures for electronic recording and on-line transmission
- Adoption of **international definitions and protocols for road crash data** (accident, fatality, injury severity, crash characteristics)
- Estimation of **under-reporting** through linkage and cross-checking of Police and Health Sector data
- Strengthening of **cooperation and exchange of knowledge and data between Police, Transport and Health Sectors.**
- Data publication and sharing at national level, and **national observatory**
- Data sharing at international level and regional observatory



# Thank you

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