

**2nd Meeting of Western Balkans Road Safety Observatory
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Surveillance system for road safety in Republic of North Macedonia

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Legislation - *Long tradition*

- **Law for evidence in health** "Official Gazette" No 20/2009, No 53/2011, No 164/2013, No 150/2015
- Law for evidence in health "Official Gazette of SFRJ" No 22/78 and 18/88
- Law for evidence in health "Official Gastec of RM" No 37/79, No 21/85 and No 15/95
- Guideline for unique methodological principles and statistical standards for evidence in health "Official Gazette of SFRJ" No 13/79
- Guideline for principles for evidence in health "Official Gazette of RM" No 21/85

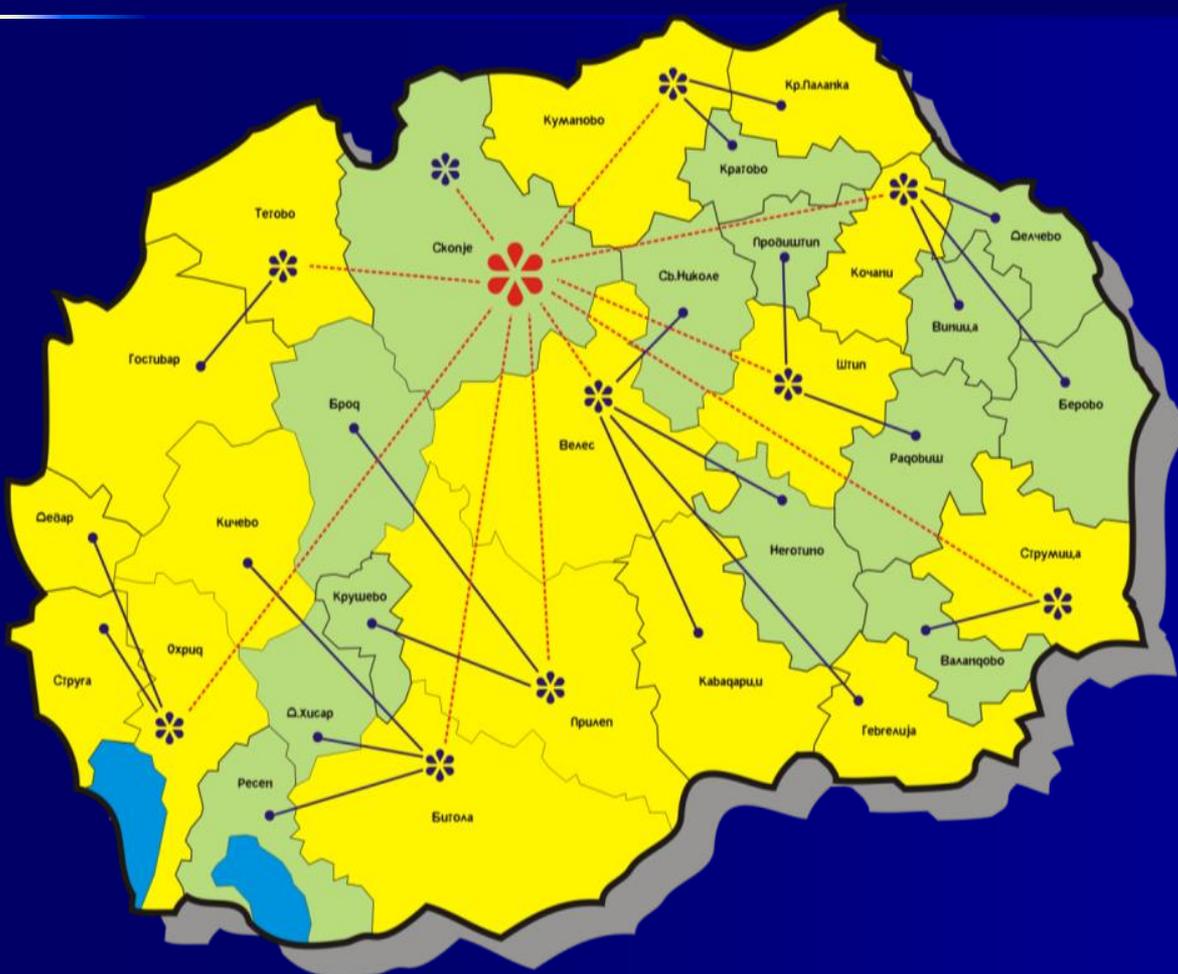
Legislation

- Law on State Statistics
- Law on Protection of Personal Data
- Law on data in the Electronic Form and Electronic signature
- Health Care Law
- Health Insurance Law
- Law on Protection of Patient Rights
- Law for Public Health
- Law on Interior
- Law for road traffic safety
- Criminal Code of Republic of Macedonia
- Statistical program for the Republic of North Macedonia
- National Public Health Program

System for health statistics - Partners

- Ministry of Health
- Agency for E-health
- National Institute of Public Health
- 10 Centers for Public Health
- Health Insurance Fund
- State Statistical Office
- Institute of Occupational Health
- Institute of Epidemiology at Faculty of Medicine Skopje
- State agencies for:
 - Personal data protection
 - for free access to public information
- Health organizations
- Ministry of interior

Institute of Public Health and 10 Centers of Public Health



LEGENDA

-  Здравствени центри
Health centers
-  Здравствени центри и Општи болници
Health centers and General Hospitals
-  Завод за здравствена заштита
Institute for Health protection
-  Републички завод за здравствена заштита
Republic Institute for health protection

Functions

National Institute of Public Health

- coordination of the 10 Centers of Public Health
- a reference centre for health statistics
- a training centre for Public Health
- an affiliated basis for Public Health to the Medical Faculty in Skopje

Department for Violence and Injury Control and Prevention

10 Centers for Public Health:

- collecting, processing and analysis of data including injuries

Law for evidence in health

- record - keeping
- data collection (digital and manual)
- 35 individual evidences and registers
- data flow and exchange
- reporting and publishing
- data quality and protection
- rights and responsibilities

Individual evidences for road traffic injuries

- **Road traffic injury record**
- **Occupational injury record**
- **Hospital admission record**
- **Sick leave record**
- **Death certificate**

Individual evidence for road traffic injuries

WHO injury surveillance guideline

Information for:

- Injured
- Road traffic crash: cause, risk, mechanism, place, time
- injury: medical data for injury, treatment and outcome
- WHO ICD 10 (4 or 5 digits) for nature (S/T) and external cause (V/Z)

Individual evidence for road traffic injuries

- **Compulsory** for all health organizations (HO)
- Paper Data flow
 - from HO to CPH (by 5th)
 - **CPH to IPH (by 10th in the month)**
- Digital Data flow – online through web register within health information system linked with “my term” application

Mortality

State Statistical Office

Death Certificate

- ICD10 – 4 digits for nature and external cause of injury
- provides national information disaggregated by age, sex, region
- Web site, on request
- Exchange of data with MOH, MOI, HIF
- Exchange of aggregated data with IPH (not individual)
- **Problems:**
 - Under reporting
 - Poor quality of data (missing data for external cause of injury)

Hospital Admission

National Institute of Public Health

10 Centers of Public Health

Individual Evidence for Hospital Admission

- ICD10 – 4 digits for S/T and V/Z (5 digits with new form)
- provides national information disaggregated by age, sex, region
- HIF DRG
- Web site, on request
- Exchange of data with MOH, MOI, HIF
- Exchange of aggregated data with SSO (not individual)
- **Problems:**
 - Under reporting
 - Poor quality of data (missing data for external cause of injury)

Emergency Department Data

National Institute of Public Health

10 Centers of Public Health

- All individual evidences for road traffic injuries should be filled by EDs
- There is no ED injury register
- There are no available routine data for RTIs from EDs (they have data in their record books)

Information Technology

Ministry of Information

Ministry of Health, Agency for E-health

Health Insurance Fund

Institute of Public Health, 10 Centers for Public Health

- National Strategy for Health Information System
- Integrated Health Information System – in process
- **Software application “ my Term”**
- **Electronic referral**
- National Software development for individual evidences for RTIs – in process
- ICD 10 software
- DRG Grouper
- Computerised at entry point available (HOs)

Data sharing

Institute of Public Health

10 Centers of Public Health

Ministry of Health

Agency for e-health

Health Insurance Fund

Ministry of Interior

State Statistical Office

Health organizations

Problems

- Overall **underreporting** even though it is compulsory
- **Low motivation** of health professionals FOR reporting
- **Poor quality** of data
- **Poor exchange** of primary information between sectors

Recommendations

- **Legislation Enforcement**
- **Better control** by the State Sanitary and Health Inspectors on health statistics
- **Motivate** health care providers - data producers
- **Improve reporting**
- **Improve quality of data**
- Development of **guidelines** for data collection
- **Training of health providers at different levels**

Recommendations

- Development of **software application for RTIs data** collection, processing, analysis and exchange
- Develop **web register for RTIs**
- **Establish Health Integrated Information System**
- **Improve information exchange** between different sectors and stakeholders
- **Further support** from WHO EU and country office
- **Regional cooperation** through SEE Health Network, Transport Community, WBRSO